Logicube®

CELLDEK®

CellDEK User's Manual

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NOTE: Opening the CellDEK faceplate to access the embedded PC will void the warranty.

NOTE: “Hacking” the CellDEK application to access the embedded PC’s Operating System will also void the warranty. Logicube can reload the CellDEK application for a substantial fee.

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1. Introduction to CellDEK

Introduction

Congratulations on your purchase of CellDEK. This unit will provide many years of dependable service if used properly. It is designed to be utilized by the expert and novice alike.

CellDEK stands for Cellular Data Extraction Kit. It is designed to carry out data extractions from cell phones, Satellite Navigation Devices, PDA's, SIM cards and flash based media. Data can be extracted from phones and PDA's using three connection methods; data cables, infrared ports or Bluetooth radio frequency communications. The target devices may connect to CellDEK by one, two or all three of these methods.

The CellDEK software also helps with easy identification of the target device and informs the user of available connection methods. The user can select the preferred connection method. Historically, data cable connection has been time-consuming as it can be difficult to locate and identify the correct data cable for the target device. CellDEK eliminates this by using a set of intelligent data cable connectors. Once the target device has been identified, CellDEK automatically selects the correct data cable connecter from the connector rack. This is a fast and reliable data cable connector selection process.

Recommended use of CellDEK

CellDEK is a forensically sound mobile phone and PDA data extraction tool, able to obtain real time intelligence from a mobile handset at a scene. It is designed to extract as much information as possible in a forensic manner and disclose any other information which might be present but has not been extracted. It is aimed at getting information immediately from the mobile handset to help move forward an investigation. CellDEK has been designed with a full audit trail allowing users to demonstrate when actions were taken. The examination is write-protected to ensure that information cannot be written to the handset or media card.

CellDEK has been tested on a large range of handsets and its capabilities are displayed during the data extraction process. The tests have verified that CellDEK extracts data reliably. The User should consult this information to ensure that the captured data meets their needs

Users should consider using CellDEK in an appropriate environment to prevent any messages or calls being received which will change the data on the handset. This can also be considered as interception. The user should consult with their local authorities for recommendations on legal implication of intercepting data in the context of their examinations.

Current Software Version of CellDEK

As of this writing, the latest software version available on CellDEK is **1.22.0.1.**

Software updates are available by subscription only. Please contact Logicube Sales or your CellDEK Distributor to purchase a subscription.

New software features are listed in the CellDEK activity log every time it is started.

There are several changes to handsets that will result from examination by CellDEK.

If an unread SMS is opened during the examination process, the unread SMS status will change to read on the phone or SIM card. However CellDEK will report the original status of the message.

CellDEK operation will remove the missed call message or symbol from the handset.

Bluetooth acquisitions will leave the extracting device name in the “trusted devices” list in the handset Bluetooth menu.

The extraction of SMS messages can be skipped thus preventing these changes to the data on the handset.

A quarterly hardware and software upgrade package is available by subscription. This will increase the capabilities of CellDEK and ensure CellDEK develops in line with new handsets and technologies

Features

Able to connect to a wide variety of cellular phone, Satellite Navigation, SmartPhones, PDA (Personal Digital Assistant) and Flash Memory devices.

Direct connection via cable, IR (Infrared) or Bluetooth.

Built-in cellular phone identification module.

Water-resistant, rugged carrying case.

Embedded PC with 30GB of storage.

MD5 Hash to ensure that captured data is not tampered with.

Using this guide

This user guide is made up of 6 sections:

Introduction

Getting Started (Fast Start)

Capturing Data

Analyzing Captured Data

Other Features

FAQ’s and Troubleshooting Guide

System description

The CellDEK system is packed in a rugged, water-resistant carrying case. Inside, you will find the following components:

Embedded PC built into the case.

A stylus for use with the embedded PC's touch screen.

A set of intelligent data cables, which are able to connect to a variety of cellular phones. These cables are stored in sequential holders built into the case lid.

1 Nokia CA-42 Cable.

Nokia Flash Adapters.

A SIM card adapter.

An AC power adapter that charges the internal battery of CellDEK .

A Network Isolation Card (NIC), which is used to isolate a target device from the network.

This manual.

NOTE: Opening the CellDEK faceplate to access the embedded PC will void the warranty.

NOTE: "Hacking" the CellDEK application to access the embedded PC's Operating System will also void the warranty. Logicube can reload the CellDEK application for a substantial fee.

Figure 1 – CellDEK

Overview of the CellDEK

Please refer to Figure 2 below.

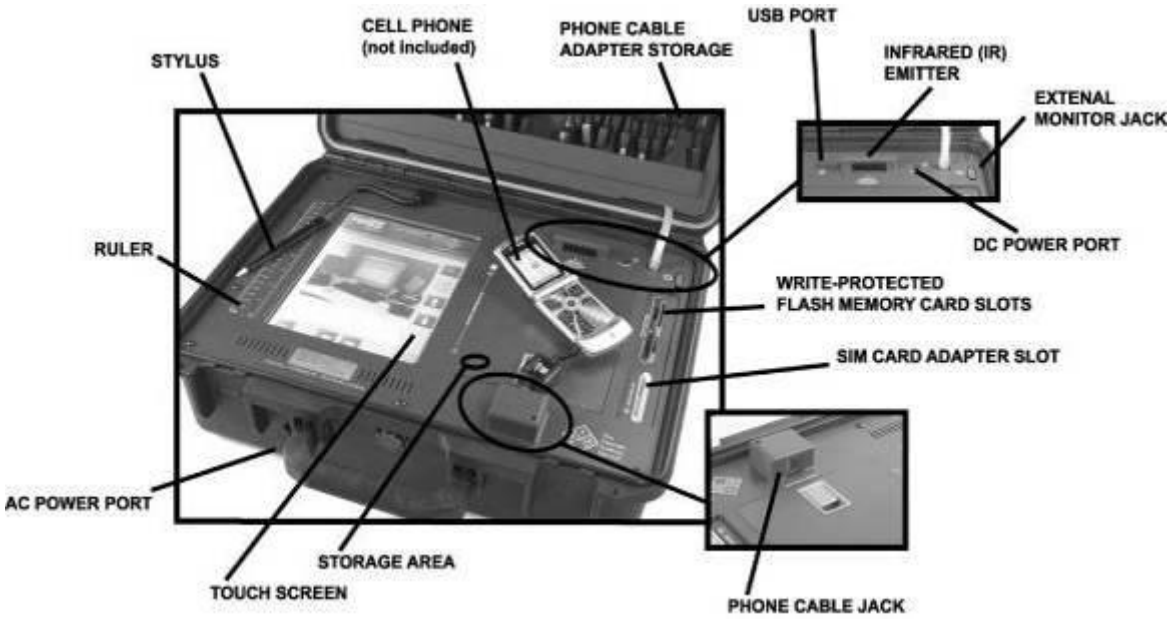


Figure 2 – CellDEK Overview

1. **TOUCH SCREEN** - All of the CellDEK software and user input is controlled from here.
2. **AC POWER SOCKET** – The AC power supply plugs into this socket. The power supply charges the CellDEK battery.
3. **RULER** – This ruler is used to measure the dimensions of a suspect wireless device. It is printed in mm and inches.
4. **STYLUS** – This can be used on the touch screen instead of the user's finger. It is more precise and keeps the display clean.
5. **CELL PHONE** – This is one of many types of cellular phones that can be connected to the

CellDEK with one of the included adapter cables.

6. **PHONE CABLE ADAPTER STORAGE** – This rack is for cell phone adapter cables that are not currently in use. It is also where the CellDEK detects the adapter cable prior to a capture.
7. **USB PORT** – This USB port is used to connect an external USB drive for data backup purposes. When used to extract data from a USB drive, the port becomes write protected.
8. **INFRARED (IR) EMITTER** – During an infrared capture, the wireless device's IR port is pointed toward this emitter
9. **EXTERNAL MONITOR JACK** – An external PC monitor can be plugged into this port.
10. **DC POWER PORT** – This is a 12VDC power socket that can be used to power external devices like a jammer, light source, etc.
11. **FLASH MEMORY CARD SLOTS** – These ports work for CF, SD, SM and Memory Stick cards. Additional Flash memory cards of different types can be attached via an adapter. The slots are write-protected.

    NOTE: Other flash-based media cards (i.e. transflash cards) can be read in an adapter that connects to one of the existing card reader slots. Such adapters are available in any electronic store.
12. **SIM CARD ADAPTER SLOT** – This port allows users to capture data directly off the SIM or USIM card. A SIM card adapter is provided for this purpose.
13. **PHONE CABLE JACK** – When CellDEK illuminates the correct adapter; it gets plugged into this slot.
14. **STORAGE AREA** – This compartment can be used to hold extra items, adapters, cables, etc. It also contains a bag with additional adapters that extend the functionality of certain cables and the DKU Nokia cable.

NOTE: The CellDEK case lid should always remain closed when the unit is charging or not in use.

Setting Up CellDEK

Battery Status

Before CellDEK is powered up for the very first time; it needs to have the battery charged. Attach the AC cable into the AC socket and connect the other end to an AC wall outlet. Make sure that the CellDEK case is closed. Allow CellDEK to charge for 24 hours prior to use.

The CellDEK main application screen displays the battery life of the unit. When the battery has depleted to around 5%, CellDEK will alert the user to carry out a recharge. When the battery level drops below this state, CellDEK will shut down and will not restart correctly until the unit is charged. Figure 3 below shows that the CellDEK battery is about 60% charged:

Figure 3 – Battery Recharge State

Charging CellDEK Z

CellDEK may be charged with the included AC power supply. The power supply can be plugged into 110 or 230 VAC power.

Normal charge time = 8 Hours – A full charge will give 3 hours of usage.

NOTE: The CellDEK lid should always remain closed when the unit is charging or not in use.

Powering Up CellDEK

CellDEK is designed to boot quickly and with minimal fuss. The procedure is as follows:

1. The power switch only moves vertically and is located next to this symbol.

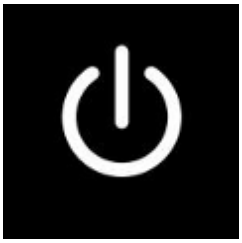


Figure 4 – Power symbol

2. Slide the switch in an upwards direction and let it go. CellDEK will initialize and boot-up the CellDEK application.
3. At the login prompt, type **CellDEK** for the user name and leave the password blank. This is the operator login.

   NOTE: The operator login restricts the use of the device operating system solely for use of the CellDEK application. The operator does not have access to the operating system settings.

   NOTE: Accessing the embedded PC's Operating System for purposes other than running the CellDEK application will void the warranty.
4. A small prompt will appear that asks where CellDEK is being used. Choose USA for the United States and its territories; otherwise choose UK for the rest of the world.

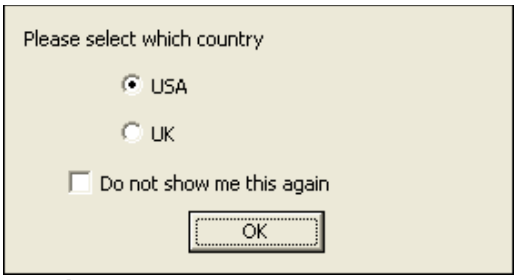
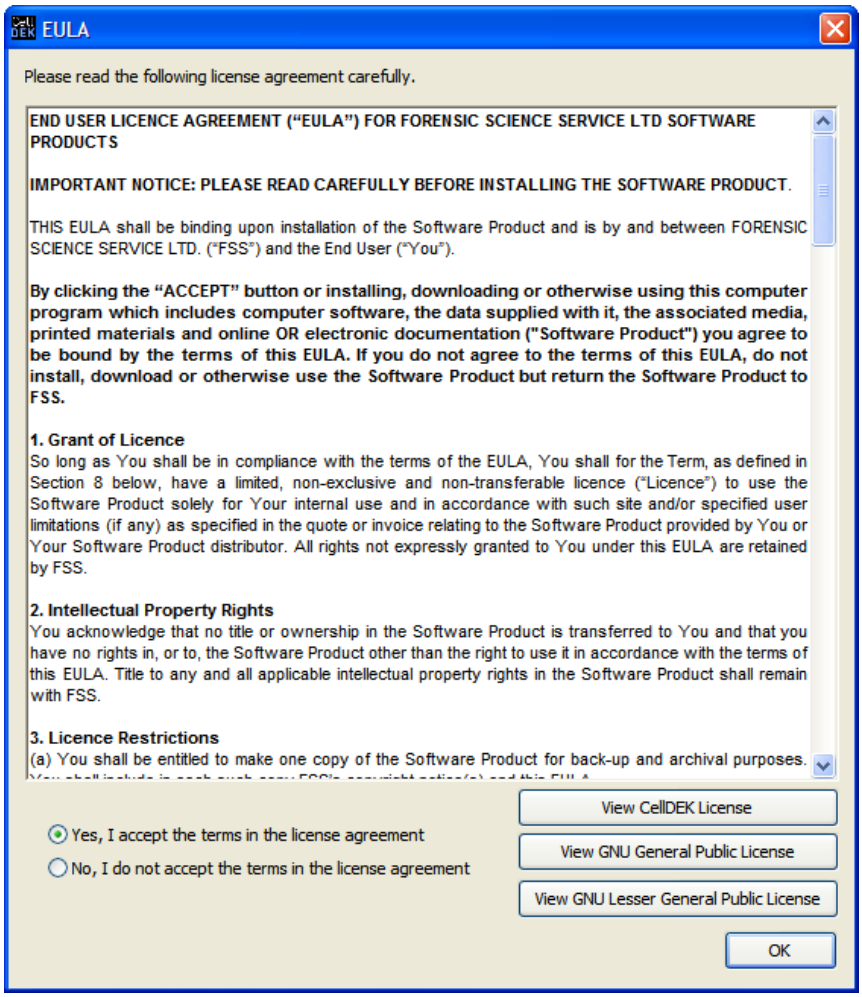


Figure 5 – Country EULA Prompt

5. The EULA (End User License Agreement) will appear.


EULA
Please read the following license agreement carefully.
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By clicking the "ACCEPT" button or installing, downloading or otherwise using this computer program which includes computer software, the data supplied with it, the associated media, printed materials and online OR electronic documentation ("Software Product") you agree to be bound by the terms of this EULA. If you do not agree to the terms of this EULA, do not install, download or otherwise use the Software Product but return the Software Product to FSS.
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3. Licence Restrictions
(a) You shall be entitled to make one copy of the Software Product for back-up and archival purposes.
Yes, I accept the terms in the license agreement
No, I do not accept the terms in the license agreement
View CellDEK License
View GNU General Public License
View GNU Lesser General Public License
OK

Figure 6 – End User License Agreement

6. CellDEK will boot to the Main Application Menu.

Logicube CellDEK
Technical Support Line: 818-700-8488 EX 3
Battery Level
FUNCTIONS
read new device
manage files
shut down
view previous extractions
upgrade software
system setup
OFF
aux power
ACTIVITY LOG
***** New Features included in CellDEK version 1.20 *****
- Support for Android 2.2 Contacts
- Support for iPhone Skype data
- Additional NIC support - Create NIC without the original SIM card
- Improved device selection menu
- Device support increased to 1992 handsets
For more information refer to the release notes by clicking 'i' in the top right of your screen
***** New Features included in CellDEK version 1.19 *****
- Support for iPhones running version 4.0 (Latest iTunes install required)
page up
page down
clear log

Figure 7 – CellDEK Main Application Screen

Virus Protection

To enhance the security of the data held on CellDEK it is recommended that the user installs virus protection software on the unit. The user may install virus protection of their choice through the Windows interface.

Installation

To gain access to the windows desktop from the main CellDEK application press the following where applicable:

Insert a USB keyboard and press the return key or

On older models: Open the storage compartment and press the target ('bull's-eye' button) located in the top left hand corner of the compartment.

On newer models: Press the screen option buttons 1 and 4 simultaneously which are located at the bottom right corner of the screen.

When on the windows desktop you will need to run 'Shortcut to HideStartBar.exe' located on the desktop (this may be located inside the unused desktop items folder).

The virus software can then be installed using a CD drive or from a USB thumb drive following the providers installation instructions.

Virus Updates

To gain access to the windows desktop from the main CellDEK application press the following where applicable:

Virus protection software requires regular updates in order to recognize the latest virus threats. The update method can vary but usually requires an update file to be downloaded on an internet PC. This update file can then be copied to the CellDEK desktop folder and the virus settings can be set to point to the location. When the update option is selected in the virus software, the software will retrieve the file from the desktop folder rather than from the internet. The desktop folder contents can then be updated daily, weekly or when required.

If virus protection software is installed we recommend that the system is monitored for changes in performance to the CellDEK application. If the system performance is affected it may be necessary to adjust the virus software settings to enable CellDEK to operate without restriction.

Virus Checker

A virus check option has been included within the system setup menu. The user can now run a malware removal tool to check for virus infection.

Introduction

Computer viruses are very common, easily spread and can be difficult to remove. Viruses can cause damage to computer systems by corrupting files, changing information and gathering personal data. Generally, virus files can only infect a system if the file is executed. This briefing note has been produced to help identify infection of your CellDEK unit.

Checking for Infection

The CellDEK software 1.16 and newer enables the user to run a regular virus check on the system within the system setup screen. On selection, the 'Virus
Check' will request for a USB key to be inserted that contains the latest virus removal tool. The selected tool will be copied to memory and can be updated at anytime using the update button.

Figure 8 – CellDEK System Setup Screen

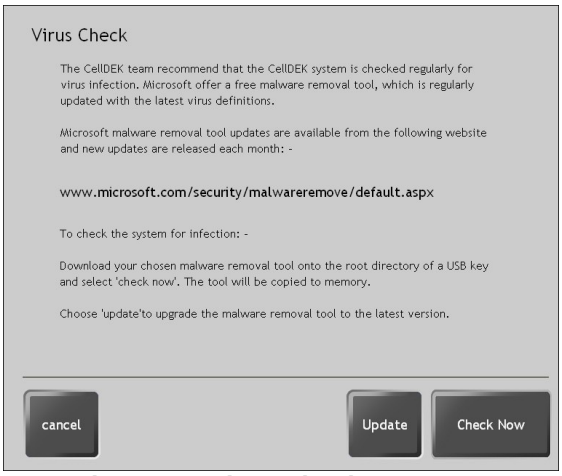

Virus Check
The CellDEK team recommend that the CellDEK system is checked regularly for virus infection. Microsoft offer a free malware removal tool, which is regularly updated with the latest virus definitions.
Microsoft malware removal tool updates are available from the following website and new updates are released each month: -
www.microsoft.com/security/malwareremove/default.aspx
To check the system for infection: -
Download your chosen malware removal tool onto the root directory of a USB key and select 'check now'. The tool will be copied to memory.
Choose 'update'to upgrade the malware removal tool to the latest version.
cancel
Update
Check Now

Figure 9 – Virus Check Screen

A suitable free tool produced by Microsoft is listed below. This tool checks for specific, prevalent malicious software and helps remove any infection found. This tool can be downloaded directly from the Microsoft website and is updated with the latest virus definitions on the second Tuesday of each month:

http://www.microsoft.com/security/malwareremove/default.aspx

Please note that this tool may not remove all known viruses. Other antivirus software may be required to remove specific viruses or malware not covered by this tool. Instructions on how to install antivirus programs through the Windows interface within CellDEK can be found in the CellDEK Users' Guide.

Note: The Microsoft Windows Malicious Software Removal Tool is a single .exe file that is used to locate and remove an infection only. It will not install on the CellDEK system and will not actively protect the CellDEK from further infection.

IMPORTANT: Other virus checking tools that have not been tested by the CellDEK team are available. Please proceed with caution when using untested software. If the system performance is affected it may be necessary to adjust the virus software settings or remove entirely to enable CellDEK to operate without restriction. Logicube is not liable for damages or lost files when using untested software.

Windows Malicious Software Removal Tool Screen Shots

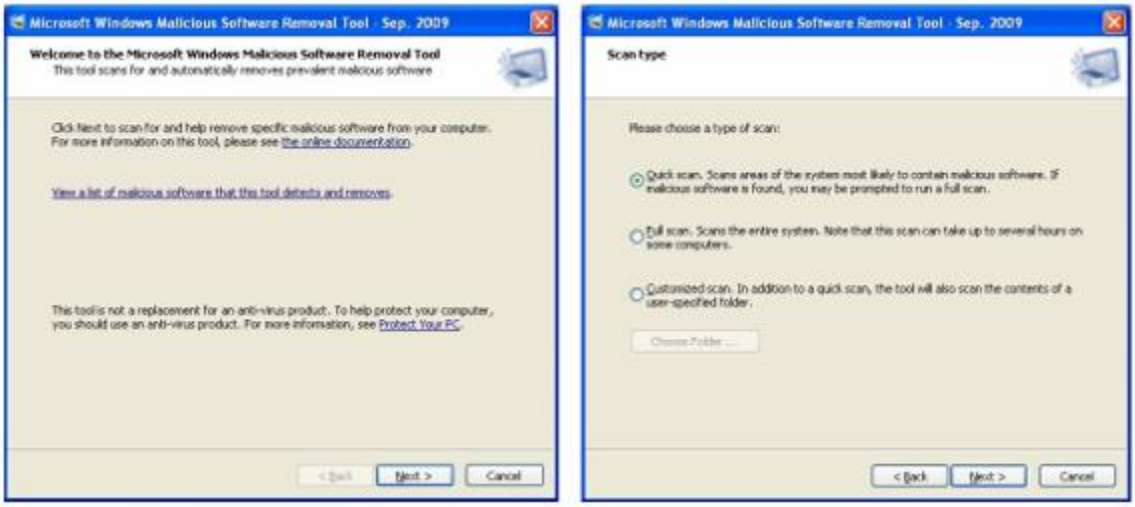

Microsoft Windows Malicious Software Removal Tool - Sep. 2009
Welcome to the Microsoft Windows Malicious Software Removal Tool
This tool scans for and automatically removes prevalent malicious software
Click Next to scan for and help remove specific malicious software from your computer.
For more information on this tool, please see the online documentation.
View a list of malicious software that this tool detects and removes.
This tool is not a replacement for an anti-virus product. To help protect your computer, you should use an anti-virus product. For more information, see Protect Your PC.
< Back
Next >
Cancel
Microsoft Windows Malicious Software Removal Tool - Sep. 2009
Scan type
Please choose a type of scan:
Quick scan. Scans areas of the system most likely to contain malicious software. If malicious software is found, you may be prompted to run a full scan.
Full scan. Scans the entire system. Note that this scan can take up to several hours on some computers.
Customized scan. In addition to a quick scan, the tool will also scan the contents of a user-specified folder.
Choose Folder ...
< Back
Next >
Cancel

Figure 10 – Windows Malicious Software Removal Tool

To prevent changes to the evidential data content in the data files folder the user can select a custom scan and choose to scan system folders only*.

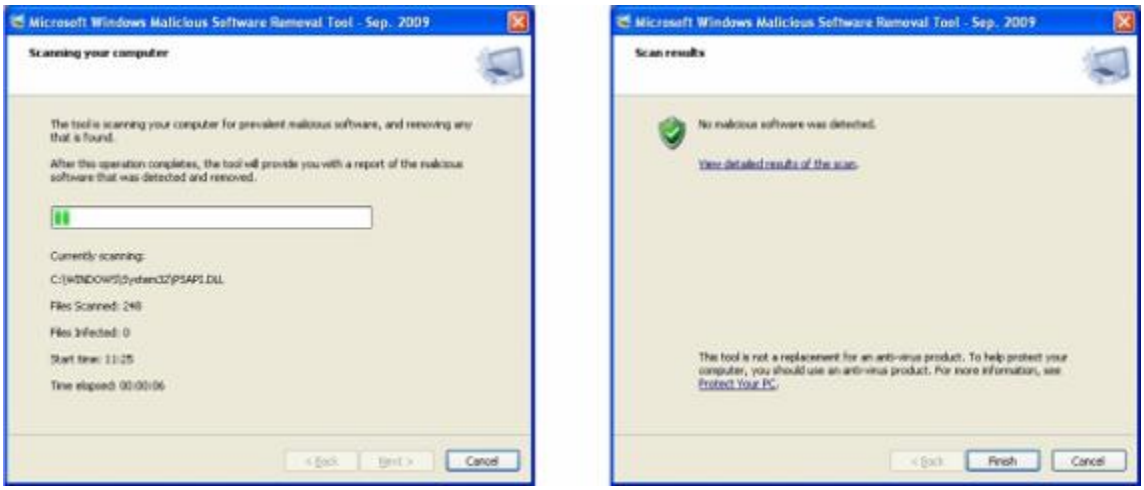


Figure 11 – Windows Malicious Software Removal Tool cont'd.

**Carrying out a full or quick scan may result in files that have been identified by the Microsoft Windows Malicious Software Removal Tool as 'malicious', to be removed from the CellDEK system. To protect evidential files you may wish to isolate the data files folder from the scan by selecting the customized option*

.

Data Files folder location: C://Program Files/FSS/CellDEK/Data Files

***Note:** Any files identified as 'malicious' that are removed from the data files folder during the scan will remain listed as downloaded in the CellDEK report.*

CellDEK Operation

Figure 12 – Using the CellDEK stylus

The CellDEK is operated via a touch screen interface. A stylus is included and is stored in a holder located directly above the touch screen.

NOTE: The CellDEK lid should always remain closed when the unit is charging or not in use.

Touch Screen Calibration

The touch screen on the CellDEK can be calibrated. There are two sets of instructions that can be followed to perform a touch screen calibration depending on the CellDEK you have.

7. Fujitsu tablet - CellDEKs that have power button top right hand corner of the display.
8. Panasonic tablet - CellDEKs that require you to open the storage area to turn the power on.

Calibrating the Fujitsu model

1. Turn the CellDEK.
2. On the Windows Log On screen, tap **OK** to log on to Windows.
3. The End User License Agreement should appear. Do not do anything to the License Agreement. Do not close it. Do not click OK.
4. Double-tap the ***Hide StartBar*** icon. If you cannot locate it on the desktop, look for a folder called “Unused Icons”. Double-tap that folder and see if the Hide StartBar icon is there. After double-tapping the Hide StartBar, the Windows Start button should appear on the bottom left of the screen.
5. Tap the ***Start*** button.
6. Tap Control Panel.
7. In the Control Panel, double-tap ***Tablet Calibration***.
8. Follow the instructions on the screen, touching the red + marks. There will be 9 of them (3 rows (top, middle, and bottom) and 3 columns (left, middle, and right).
9. When you are done with the 9th mark, a pop will appear “Calibration is succeeded. Settings change is effective after system restart”.
10. Tap **OK**, and close Control Panel window.

11. Re-start system in order for settings to take effect. Start, Shut Down.
12. Once re-started tap **OK** on Windows log in.
13. Tap **OK** on the End User License Agreement to load the CellDEK software.

Calibrating the Panasonic model

Note: The steps below require a USB keyboard.

1. Turn the CellDEK.
2. On the Windows Log On screen, tap **OK** to log on to Windows.
3. The End User License Agreement should appear. Do not do anything to the License Agreement. Do not close it. Do not click OK.
4. Attach the USB keyboard to the USB port.
5. Double-tap the ***Hide StartBar*** icon. If you cannot locate it on the desktop, look for a folder called “Unused Icons”. Double-tap that folder and see if the Hide StartBar icon is there. After double-tapping the Hide StartBar, the Windows Start button should appear on the bottom left of the screen.
6. Tap the ***Start*** button.
7. Tap ***Control Panel***.
8. In the Control Panel, double-tap ***Mouse***.
9. In the Mouse Properties window, tap the ***TouchScreen*** tab.
10. In the Calibration & Test section, tap the ***Calibration*** button. The screen should go into calibration mode.
11. Follow the instructions on the screen, touching the red + marks. There will be 9 of them (3 rows (top, middle, and bottom) and 3 columns (left, middle, and right).
12. When you are done with the 9th mark, the mark will go back to the top left. At this point, press the Enter key on the keyboard and it will bring you back to the Mouse Properties window.
13. Tap OK to close the Mouse Properties window and close the Control Panel window.
14. Tap OK on the End User License Agreement to load the CellDEK software.

Identifying a Target Device

Target devices can be difficult to identify. Many show the manufacturer's name or logo, but not the model name or number. This information is usually displayed behind the battery of the target device. To view the label, the target device would be powered down and the battery removed.

On power-up a PIN or PUK number may be required to unlock the target device. This number can be obtained from the device's network service provider by authorized law enforcement personnel.

Identification of the target device is required to determine which connection methods are available (e.g. cable, infrared or Bluetooth) and for data cables, the specific cable connector.

Attaching a Cellular Phone

Begin by tapping the ***Read New Device*** button on the Main Application Screen. The Device Type Selection screen will appear.

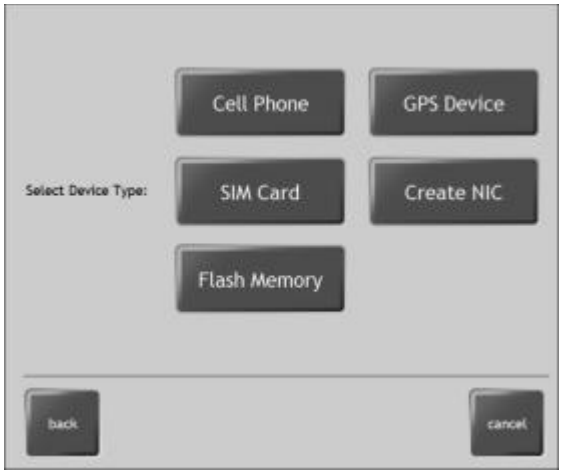


Figure 13 – Device Type Selection

Tap the ***Cell Phone*** button. The next screen prompts the user to choose the manufacturer. If the manufacturer is unknown, the search is carried out on all manufacturers.

For a given manufacturer, CellDEK helps to identify the target cellular phone as follows:

Selection from a model list

Selection from model images

Selection from a “short list” of model images based on entered dimensions.

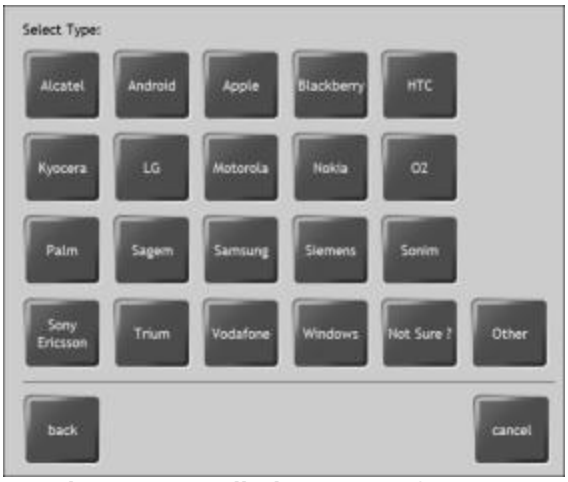


Figure 14 – Cell Phone Manufacturer

Once the manufacturer is chosen, the Cell Phone Selection Screen will appear.

Figure 15 – Cell Phone Selection

If the user knows the model of the cell phone, then the ***List Models*** option should be selected. A list will come up of all known models.

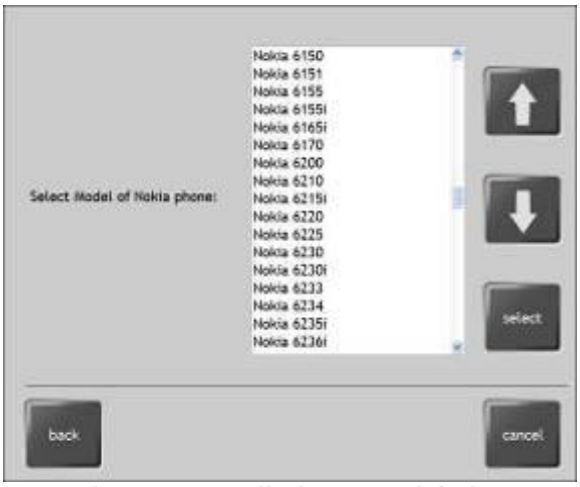


Figure 16 – Cell Phone Model List

Scroll down the list and select the model number of the cell phone.

If the model is unknown, images of all models for the chosen manufacturer are obtained by selecting ***View Models***.

Figure 17 – Cell Phone Models

NOTE: Fully verified and supported handsets are indicated by green “check marks”. Handsets that are not supported but are expected to work are indicated by amber check marks. Unverified handsets have no check mark; so treat extractions from these handsets as a minimum data extraction.

NOTE: Some handsets can use a Network Isolation card (NIC) during capture. This feature is further explained in the ***Network Isolation Card (NIC)*** section later in this chapter.

Scroll down the list and choose the image that looks like the target cell phone.

You may be faced with a large list of cell phones. To narrow down the search, tap the ***Back*** button.

Select ***Refine List***. The user has the option to apply two filters. The user can choose to apply either or both of these filters.

The first will narrow down the images shown using physical features of the phone (e.g. Does the phone have an antenna or camera and what type of phone is it? Clamshell, swivel, slide or bar).

The second or Input Dimensions filter is used to enter the physical dimensions of the target device (length, width, depth) using mm or inches. CellDEK TEK will display the models matching those dimensions or features (within a given tolerance and depending on which filter is used).

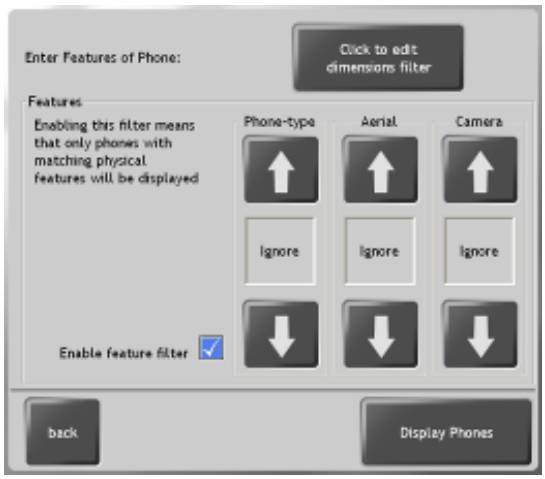


Figure 18a – Enter Features

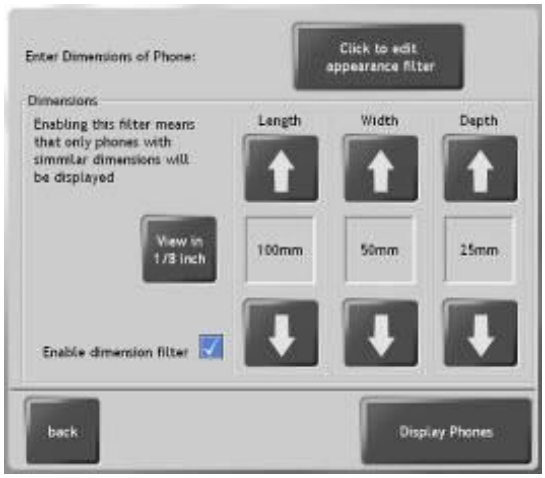


Figure 18b – Enter Dimensions

NOTE: There is a measuring ruler printed on the CellDEK TEK in inches and mm.

NOTE: This screen will allow the user to enter the dimensions in mm, 1/8 inch or 1/16 inch increments.

Tap the Up and Down Arrows to change each filter. If the handset does not have one of the features, such as a camera, set the filter to "Ignore".

When finished, tap the ***Display Phones*** button. CellDEK will display models matching those features.

Tap the model number or image to highlight it, and then tap the Select button. Refer to the "**Connection Options"** section later in this chapter.

Generic Extraction Module

If the ***Other*** Button is chosen on the Cellphone Extraction Screen, the Generic Extraction Module appears. This is used to extract from handsets that have not been identified or verified with CellDEK. This includes handsets where data could not be obtained from the known manufacturers as well as from unknown manufacturers.

The time taken for data extraction can take up to 30 minutes, depending on the amount of data.

The Generic Extraction Module only supports Bluetooth and Infrared connections.

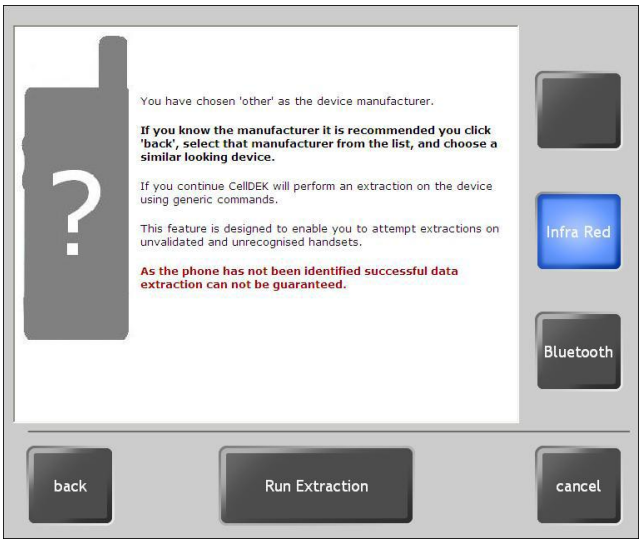

You have chosen 'other' as the device manufacturer.
If you know the manufacturer it is recommended you click 'back', select that manufacturer from the list, and choose a similar looking device.
If you continue CellDEK will perform an extraction on the device using generic commands.
This feature is designed to enable you to attempt extractions on unvalidated and unrecognised handsets.
As the phone has not been identified successful data extraction can not be guaranteed.
Infra Red
Bluetooth
back
Run Extraction
cancel

Figure 19 – Generic Extraction Module

NOTE: Users should be aware that data extracted with the Generic Extraction Module is NOT

validated. It is recommended that any data extracted using this method is visually verified by the User to ensure that no data is missed or misrepresented.

Attaching a PDA

1. Begin by tapping the ***Read New Device*** button on the Main Application Screen. The Device Type Selection screen will appear.

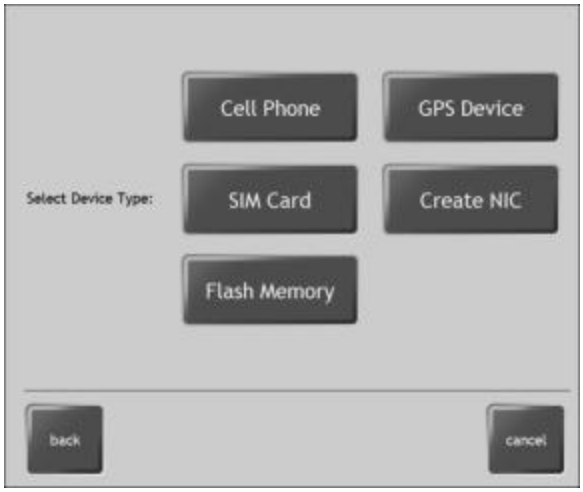


Figure 20 – Device Type Selection

Tap the "Cell Phone" button. The list of handsets and Operating Systems will appear. Select the proper Operating System (Android, Blackberry, Palm OS, or Windows Mobile.

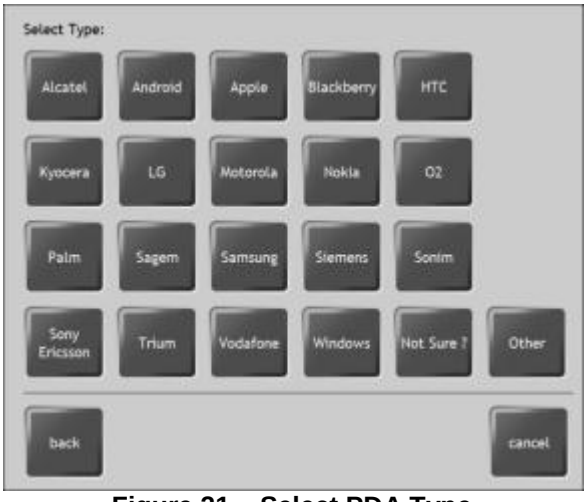


Figure 21 – Select PDA Type

Palm-based PDA's are supported by software version 1.9.0.0. and higher with the following caveats:

Extraction of SMS messages is currently not supported.

Extraction of user files is currently not supported.

CellDEK is able to collect the following information from Palm devices: Contact Details, Call Logs (if available), Calendars, Tasks, Notes and Palm Database (PDB) files. PDB files are where Palm OS keeps data stored in RAM. The data is kept in database format. These files can contain user data.

Windows-based PDA's need to have Active Sync enabled before they can be set to Infrared mode. Please refer to the "**Connecting via Infrared"** section later in this chapter.

Blackberry devices can only connect via Cable. Please refer to the "**Cable Connection"** section later in this chapter.

NOTE: Blackberry devices that are password-protected will need to be unlocked before data can be extracted. Please refer to the "**Unlocking a Blackberry Device"** section later in this chapter.

Most PDA's will need to connect to CellDEK via Bluetooth instead of the other way around. Please refer to the "**Connecting via Bluetooth"** section later in this chapter.

Additional Cable Support for PDA's:

A set of 5 new PDA cable tips and a USB cable are available from:

http://www.gomadic.com/celldek.html

These tips will enable the User to connect to a number of PDAs that are not supported by the current CellDEK cables. However, it must be noted that, although many of these PDAs are already supported by CellDEK via Infrared, an extraction using a cable will provide a faster extraction. Appendix C lists the 150 PDAs that are supported by these cable tips.

Each **tip** can be placed into the **female receptacle** thus allowing a large range of tips to be connected to the same USB cable.

Figure 22 – Additional Cable Support

SIM Card Extraction

NOTE: CellDEK supports, with software release 1.20.0.0, the ability to clone an existing SIM card. This and other features using the Network Isolation Card (NIC) are described in detail in the Network Isolation (NIC) Cards section on p. 56.

SIM Card extraction supports both SIM and USIM cards.

1. Begin by tapping the ***Read New Device*** button on the Main Application Screen. The Device Type Selection screen will appear.

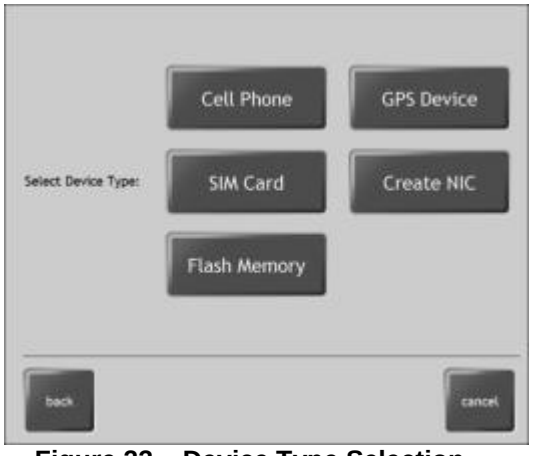


Figure 23 – Device Type Selection

Tap the ***SIM Card*** button.

Remove the SIM Card from the target cell phone. It is usually located underneath the battery.

Figure 24 – Removing SIM card from cell phone

Slide the SIM card into the adapter with the gold contacts facing out.

Place the adapter in the SIM card reader, which is located on the right hand side of the control panel.

As the card is read, the green LED light will behave in one of two ways:

On older CellDEK units, the LED will constantly stay lit, and blink when the SIM is accessed.

On newer CellDEK units, the LED stays off, then blinks when the SIM is accessed.

Figure 25 – Inserting SIM Card in Slot

Figure 26 – SIM Card in Slot

SIM PIN and PUK Codes

CellDEK enables an investigator to unlock SIM cards via the PIN code and the PUK code, if they are known.

When CellDEK is used to unlock a SIM card via the PIN code it does not relock the card afterwards.

When unlocking the SIM card via the PUK code CellDEK will reset the PIN number to “0000”. To enable the feature to enter the PUK code, the PIN code needs to be entered incorrectly several times. The PIN-input screen displays the number of attempts remaining before the PUK code is required.

Dual SIM Extracted Data

Dual SIM handsets can contain two SIM cards; however the handsets are fully operational with only one SIM. Dual SIM handsets will have the following data:

- 2 IMEI Numbers
- Up to 2 IMSI Numbers
- Up to two lots of SIM Contacts
- Up to two lots of SIM Messages

These handsets make use of two SIM card slots and are referred to as Slot 1 and Slot 2. Either slot can be used if only one SIM card is present.

There are a number of ways the user can switch between SIM cards including a software menu option or a hardware button.

The handsets also have the functionality to set which SIM card is initially used on start-up irrespective of the Slot it is in. Therefore the SIM card in Slot 2 can be set to be used before that in Slot 1.

The SIM cards will be referred to as Primary SIM and Secondary SIM, where the Primary SIM is the one set to be used first.

The following data has been tested and can be extracted from these handsets:

IMEI – Each Dual SIM handset has two IMEI numbers, one for each SIM card Slot. The IMEI numbers are associated to the SIM card slots on the handset NOT the SIM Cards. CellDEK will only extract the IMEI number of Slot 1 regardless of how many SIM cards are present or which card is set as the Primary SIM.

IMSI – Each Dual SIM handset can have up to two IMSI numbers, one for each SIM card inserted. CellDEK will only extract the IMSI of the Primary SIM card, regardless of which slot it is inserted into.

SIM Contacts – Dual SIM handsets can store contacts to either SIM card. CellDEK can retrieve contacts from both SIM cards and identify which card they were stored on. Contacts stored on the Primary SIM will be labelled “[Primary SIM]”. Contacts stored on the Secondary SIM will be labelled “[Secondary SIM]”.

SMS Messages – Dual SIM handsets can store SMS messages on either SIM card. CellDEK will only extract messages stored on the Primary SIM card, regardless of which slot it is inserted into. CellDEK will extract all handset SMS messages but cannot determine which SIM card they were sent to/from, this can be determined by viewing the SMS on the handset.

Call Logs – Dual SIM handsets store all call logs on the handset and can be dialled or received from either SIM card. CellDEK will extract all call log entries but cannot determine which SIM card was used to dial or receive the call, this can be determined by viewing the call logs on the handset. Any LDN’s stored on the SIM cards will not be extracted, a separate SIM card extraction will obtain this data.

NIC Card Functionality – Where NIC card support is verified, a NIC card will need to be created for each SIM card used in a Dual SIM handset. The NIC card will need to be returned to the same Slot from which the SIM card taken from. Placing a NIC card in the wrong slot will result in a loss of data.

NOTE: A separate extraction should always be performed on all SIM cards.

Attaching a Memory Flash Card

The Memory Card Reader is also located on the right hand side of the control panel. The CellDEK software application does not allow data to be written to the Memory Card Reader slots.

IMPORTANT NOTE: CellDEK can only support Memory Cards up to 2GB in size and will not work with SDHC cards. Users may attach a card reader that can read larger flash media such as SDHC to the USB port on the CellDEK.

1. Begin by tapping the ***Read New Device*** button on the Main Application Screen. The Device Type Selection screen will appear.

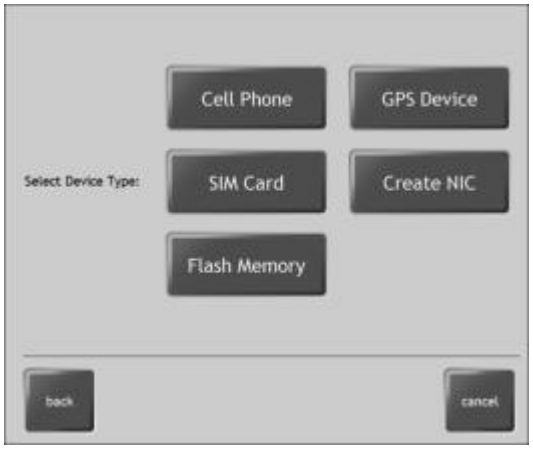


Figure 27 – Device Type Selection

Tap the ***Flash Memory*** button. The next screen will prompt the user to choose the correct memory card.

Figure 28 – Memory Card Selection Screen

Once the correct Memory Card image is selected, the next screen will prompt the user to insert the card in the indicated slot.

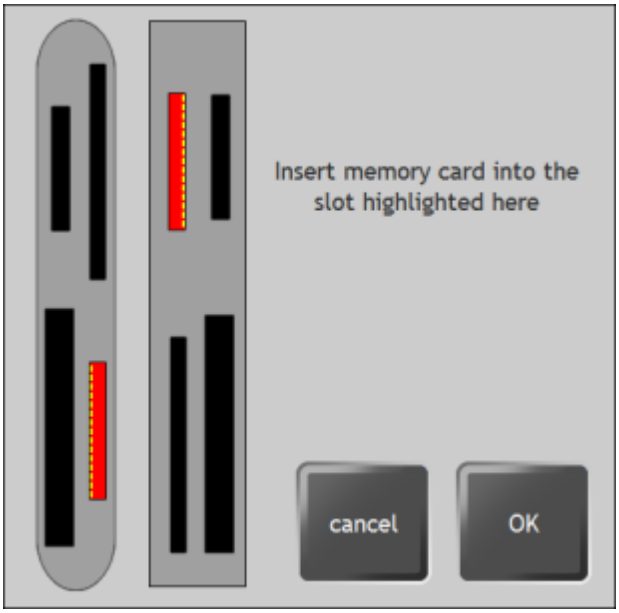


Figure 29 – Orientation Guide

Place the card into the correct slot of the reader as indicated by the on screen graphics.

Figure 30 – CF Memory Card in Slot

NOTE: If the suspect Memory Card is not represented on the Selection Screen, a card adapter may be required. (e.g. Transflash, Mini SD, Memory Stick Duo, etc.)

Imaging Flash Media

After capturing data, CellDEK will ask the user if it should perform a complete image capture of the flash memory card. If the user chooses to do this, CellDEK will run the following procedure:

1. CellDEK will make a sector-by-sector copy of the entire flash media drive.
2. The copy will be stored as an image file in the "_resource" folder of the extraction directory.
3. CellDEK will then scan the image file for the following types of JPEG files:

- Extant JPEG: Normal, readable JPEG files.
- Deleted JPEG
- Embedded JPEG: JPEG files embedded in emails or other files.

4. Any found JPEG files will be displayed by CellDEK in the Extended Data screen.
5. The image file can be copied to a thumb drive and investigated further with hex-editing or forensic software.

NOTE: CellDEK cannot distinguish between Extant, deleted or embedded JPEG files. The image file should be further investigated to determine the status of any found files, and whether similar files exist in other formats.

Attaching a GPS Device

1. Begin by tapping the ***Read New Device*** button on the Main Application Screen. The Device Type Selection screen will appear.

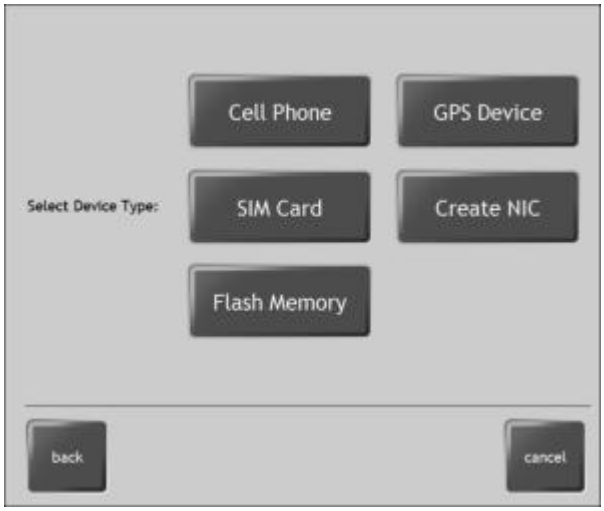


Figure 31 – Device Type Selection

Tap the ***GPS Device*** button. The next screen prompts the user to choose the type of GPS.

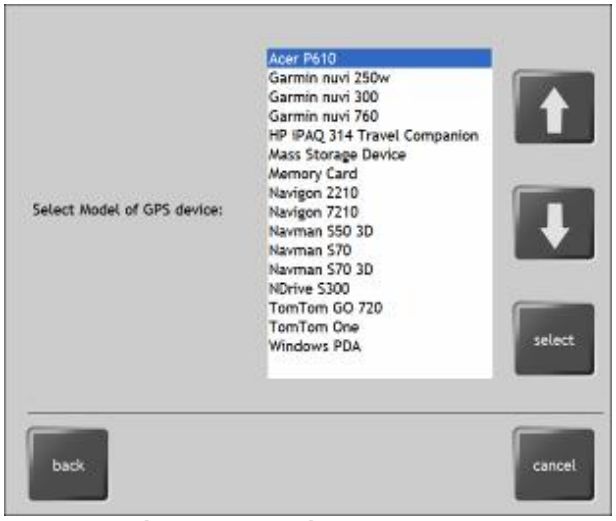


Figure 32 – Select GPS Type

If a TomTom GO 720 is to be selected, choose "TomTom GO 720". After capture, you will get an opportunity to capture the memory card separately.

If present, remove the memory card from the GPS device. This will be captured later.

WARNING: ALWAYS remove the Memory Card from a TomTom device prior to capture.

NOTE: TomTom can store the same information in the device and on the Memory Card. For that reason, the device and card may contain different sets of the same type of data (i.e. application info, favorite destinations, etc.)

Connect Cable 9 to the GPS Device and follow the prompts to extract data. The following information can be extracted from the supported TomTom Devices:

Device information

Manufacturer, Model, Serial Number

Owner information

Owner's Name, Owner's Street, Owner's Town, Owner's City

GPS location information

'Home' address with GPS coordinate,
'Favorite' addresses with GPS coordinates,
'Destination' addresses with GPS coordinates,
'Recent' addresses with GPS coordinate,
'Miscellaneous' addresses with GPS coordinates

Telecommunication information *

Telephone contact information stored on TomTom,
Telephone numbers called via the TomTom,

Telephone numbers of calls received via the TomTom, SMS messages received via the TomTom, SMS messages sent via the TomTom

Files *

MP3 files, JPEG files

*Only on supported devices.

The following information can be extracted from Garmin devices: manufacturer, model, serial number, “favorite” addresses with GPS coordinates.

14. After the GPS Device is extracted, press “Memory Card” on the screen that appears. Follow the directions for Connecting a Memory Flash Card earlier in this chapter.
15. The following information can be extracted from HP satellite navigation devices

GPS location information

‘Favorite’ addresses with GPS coordinates,

Route ‘Waypoint’ addresses with GPS coordinates.

‘Search History’ addresses with GPS coordinates.

Telecommunication information

Contact information.

Call Registers.

Files

User files can also be retrieved from the device by performing a separate Flash Media extraction.

Generic GPS Extraction

CellDEK can now search certain devices for GPS data generated by any of the following GPS Software:

- CoPilot 6
- Garmin
- Navman Smart ST
- NavNGo
- NDrive
- TomTom

The data files generated by this software can be stored on devices without any GPS software installed. This data can still be extracted using CellDEK.

Devices which GPS Data can be extracted from are:

1. Sat-Nav GPS Devices
2. Windows Mobile Devices
3. Flash Media Cards
4. Mass Storage Devices

NOTE: GPS Devices can be used to store data generated from other devices. Therefore, care must be taken when linking data to a specific device.

The following GPS Data can be extracted:

5. 'Favourite Locations' - These are a list of addresses and/or coordinates which a user has chosen to store on the device. They can contain Home and Work locations.
6. 'Recent Destinations' – These are a list of previous destinations the owner has selected to navigate to.
7. 'Route Waypoint Data' – These are a list of addresses and/or coordinates which form set locations along a route that the user has created.
8. 'History' - This is a list of addresses and/or coordinates that the owner has previously searched for or viewed. This list may also contain Favourite and Route Waypoint Locations. This list differs from Recent Destinations in that the owner may not have selected to navigate to the location.

NOTE: The presence of any of the above data on a device does not indicate that the owner has been to that location. Only that the owner chose to view and/or save that location on the device.

CellDEK will also extract Telecommunications data from some Sat-Nav GPS Devices.

The following Telecommunications data can be extracted:

- Contact information
- Telephone numbers called via the GPS Device
- Telephone numbers of calls received via the GPS Device
- SMS sent and received via the GPS device

This information is extracted from the data files created by the above software only. Mobile communication devices may have a separate store for this information.

NOTE: It is recommended that a separate PDA extraction be performed on all WinMobile devices to obtain Telecommunication Data

GPS Track Logs

CellDEK can extract GPS track logs from devices manufactured by:

- Garmin
- Navman
- HP

Track logs record the GPS coordinates of the device every 1-2 seconds giving an accurate description of where the device has been and when.

The CellDEK report shows only the start point of each stored track log, as each track can potentially store thousands of points.

Track log data is best viewed by importing the GPSData.gpx into Google Earth.

NOTE: Some devices start logging as soon as they are turned on, however other devices require the user to initiate logging to record track log data.

Opening GPSData.gpx Output Files in Google Earth

CellDEK generates an additional data file when extracting GPS Data. This file contains GPS data and can be imported into Google Earth to display the data.

The data file GPSData.gpx is created within the extraction folder automatically when a GPS extraction is performed.

The data file stores all waypoints, routes and track log data in a format which can be used by Google Earth to display all of the GPS data in the report.

NOTE: Google Earth 5.0 will need to be installed on a PC to view the GPSData.gpx file. This can be downloaded from: http://earth.google.com

Open Google Earth and tap the File menu.

Figure 33a

Then select Open.

Figure 33b

Navigate to the location where the extracted data files are stored.

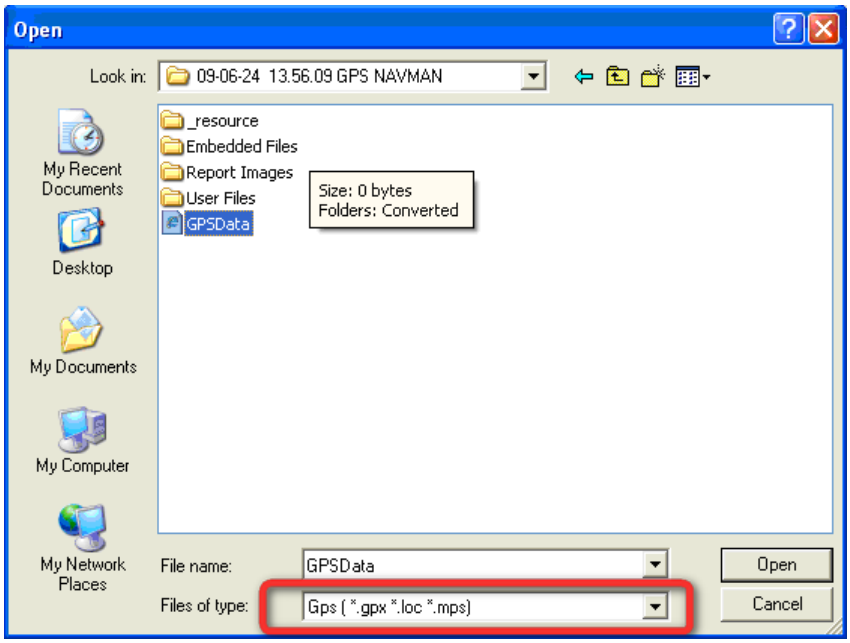


Figure 33c

In the Files of type drop down box select Gps (*.gpx *.loc *.mps) and then select the GPSData file and tap open.

Alternatively you can drag the GPSData.gpx file into Google Earth

The GPS Data Import window appears allowing you to choose what types of data you want to import.

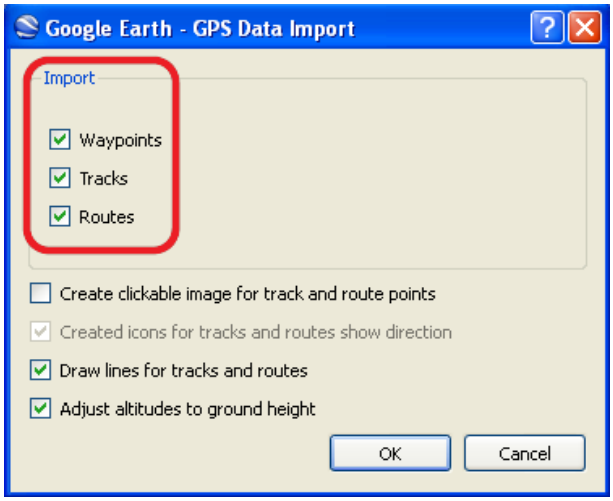


Figure 33d

To display all GPS fixes along a saved track log make sure you check the Create clickable image for track and route points.

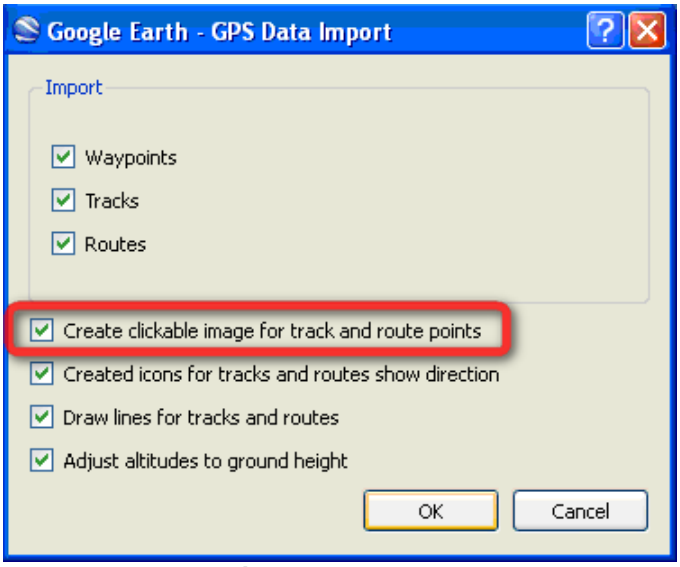


Figure 33e

The data is then displayed on the map and can be selected using the Places navigation panel.

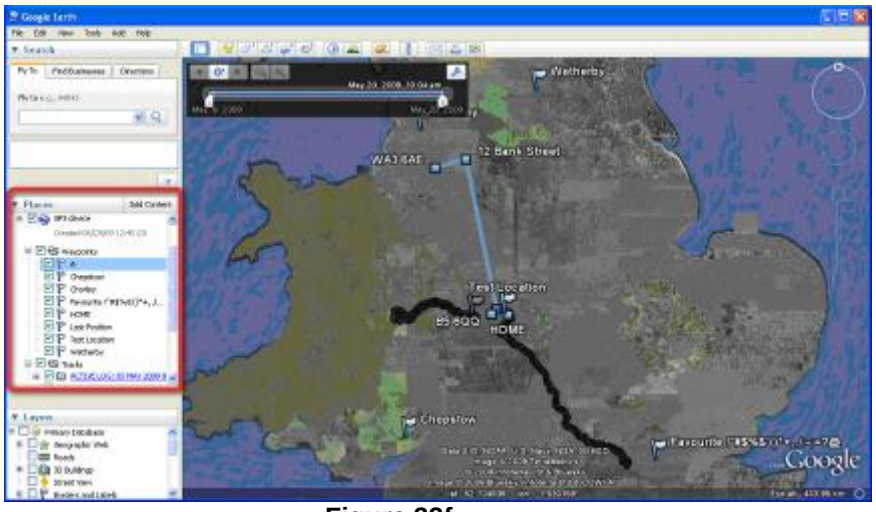


Figure 33f

A full Google Earth User Guide can be viewed at: http://earth.google.com/intl/en/userguide/v5/

NOTE: Google Earth imports GPS coordinates, Time and Date, Altitude and waypoint name data only. Any other information displayed in Google Earth has been inferred by the Google Earth software.

Geo-Tag Data from Images

CellDEK will now display Geo-Tag data for images that have been captured using a device with a GPS receiver.
A Geo-Tag consists of latitude and longitude coordinates and adds geographical identification to an image.

Geo-Tag information is automatically extracted and appears in the metadata section associated with an image.

Figure 34 – Geo-Tag

NOTE: Geo-Tagging is only displayed if the image has been captured using a device that supports geo-tagging.

Attaching an Apple Device

CellDEK software ver. 1.12.0.0. and newer is able to capture data from Apple devices such as the iPhone 2G, 3G, 3GS, and iPod Touch.

IMPORTANT NOTE: iTunes must be installed on the CellDEK before it can support Apple devices. If it needs to be installed, follow the "Enabling Apple Device Support" procedure in the Upgrade Software chapter. **See the Upgrade Software section in Chapter 5 for more information on iPhone and iTunes.**

1. Begin by tapping the "Read New Device" button on the Main Application Screen. The Device Type Selection screen will appear.

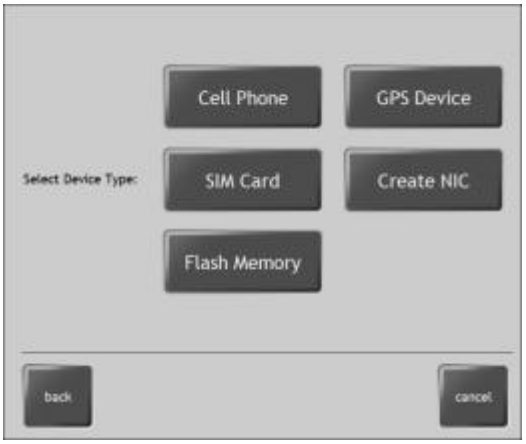


Figure 35 – Device Type Selection

Tap the ***Cell Phone*** button then select ***Apple*** from the list of handset manufacturers.

CellDEK will illuminate the correct data cable with a green light. A prompt will appear on the screen asking the user to attach the cable to the Phone Cable Jack.

NOTE: DO NOT attach the Apple device until prompted by CellDEK.

Remove the cable from the rack and insert it into the Phone Cable Jack. The cable's LED will turn red. Tap ***OK*** on the screen.

The cable's LED will turn green and a new prompt will appear. Attach the target cell phone at this time. Tap the ***OK*** button once the phone is connected.

Connection Options

Once the correct target device has been chosen, the next screen will show the different connection options that are available. The three different methods of connection are **Cable**, **Infrared** or **Bluetooth**.

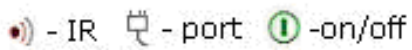
The Connectivity Option screen also shows the type of data that can be extracted from the target device. This information is shown as a series of icons that are listed at the end of this chapter. Any data types that cannot be extracted have a red "X" through the icon.

The Connectivity option Screen will also alert the user if the target device supports memory cards.

NOTE: The Connectivity Option screen will show items that can be downloaded from the SIM card if the chosen handset is a GSM phone.

Figure 36 – Connectivity Option Screen

Helper Icons



The Connectivity Option Screen also has three "Helper Icons" that indicate the location of the handset's On/Off switch, Cable Port and IR Port (if available).

Cable Connection

1. Select “Cable” from the Connectivity Option Screen. CellDEK will access the Cable Adapters that are stored in the case lid.
2. Tap the “Run Extraction” button.
3. CellDEK will illuminate the correct data cable with a green light. A prompt will appear on the screen asking the user to attach the cable to the Phone Cable Jack.

   NOTE: DO NOT attach the cell phone until prompted by CellDEK.
4. Remove the cable from the rack and insert it into the Phone Cable Jack. The cable’s LED will turn red. Tap “OK” on the screen.
5. The cable’s LED will turn green and a new prompt will appear. Attach the target cell phone at this time. Tap the “OK” button once the phone is connected.

Figure 37 – Data Cable Connected to Device

On completion of data extraction, the data cable must be replaced into any of the forty storage sockets. It does not matter which socket the cable is attached to.

Unlocking a Blackberry Device

The CellDEK allows the user to input the PIN lock for a Blackberry device directly through the CellDEK interface rather than the device itself. The CellDEK will automatically detect if a PIN lock is enabled and bring up the Enter Password Prompt.

Figure 38 – Enter Password Prompt

TIP: Tap "Hide Password" to turn it on or off. If Hide Password is on, the password will appear.

Figure 39 – Hide Password Turned On

NOTE: The password or the PIN of the Blackberry device will need to be entered. CellDEK cannot unlock the device without it.

Infrared (IR) Connection (Cell Phones and PDA's)

Figure 40 – PDA Connected via Infrared

Many Cell Phones and PDA's have a built-in infrared (IR) port, which can be used to transfer data from the target device.

1. Select ***Infrared*** from the Connectivity Option Screen and tap the "Run Extraction" button.
2. A prompt will appear on the screen asking the user to set the target device to infrared. If the device is a recognized cell phone, CellDEK will display instructions to set it to infrared mode.

Figure 41 – Instructions for Infrared Mode

NOTE: Most Windows-based PDA's are set to IR mode by going to Start – Active Sync™ - Tools – Infrared (IR) Connection.

3. Once the device is in infrared mode, place it next to the Infrared emitter on the control panel. Make sure that the device's IR port is facing the emitter.
4. After 5 – 20 seconds, the CellDEK will emit a tone to indicate that the IR connection has been made.

Bluetooth Connection (Cell Phones)

Many Cell Phones have Bluetooth capability, which can be used to transfer data from the target device. CellDEK has a range of 60 feet for Bluetooth connectivity.

Bluetooth extraction is a wireless communication link. On initiation, CellDEK will produce a list of all Bluetooth enabled devices. Caution is therefore required when selecting the correct device name list, particularly if two devices in the area have the same name. Any connection will require confirmation/acceptance on the handset in question before the extraction process can commence. This prevents accidental connection to other devices.

Bluetooth capability can only extract data once the handset has been 'paired' with the CellDEK unit. Pairing is when you enter a 4-digit code into

the phone/handset to accept the connection. If the 4-digit code is incorrectly entered you cannot access any data from the device. Data can only be extracted covertly over Bluetooth if the device is PAIRED FIRST, before returning it to the target owner. The data could then be extracted remotely without the target owner's knowledge (depending on phone type).

Cell Phone Connection

1. Set the target device to Bluetooth mode. If the device is a recognized cell phone, CellDEK will display instructions to set it to Bluetooth mode.
2. Select "Bluetooth" from the Connectivity Option Screen and tap the "Run Extraction" button. A prompt will appear asking the User to "Tap Discover Devices to Begin".

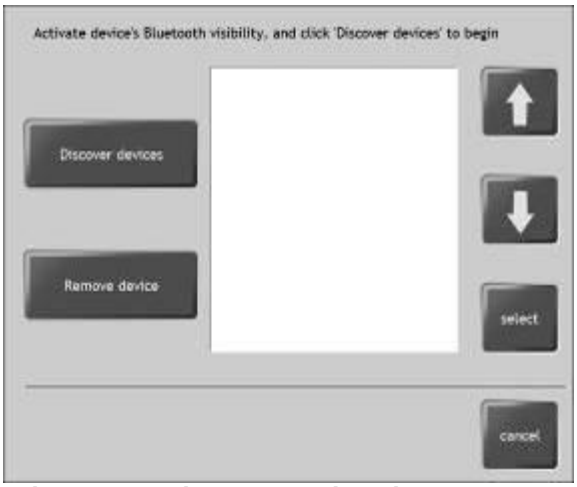


Figure 42 – Discover Device List Screen

3. Once the target device has Bluetooth enabled, tap the "Discover Devices" button.
4. A Bluetooth Activity screen will appear as CellDEK searches for Bluetooth devices.
5. After 20-30 seconds, CellDEK will display a list of found devices. Select the name of the target device and tap the Select button.

   NOTE: If the target device does not appear in the list, tap the "Discover Devices" button again. It may take more than one attempt to access the device.

6. Once connected, the Target device will prompt the user to allow connection. When requested, enter the 4-digit code as **1234** on the target device. Once the pairing process is complete, data extraction will commence automatically.

   NOTE: The target device screen must be monitored during this stage of the process.

Some target devices require confirmation at various stages to continue extracting.

After data extraction, a reminder will appear for the user to remove the CellDEK from the Device's Bluetooth History list.

Custom Extraction

Pressing the "Custom Extraction" instead of the "Run Extraction" button allows the user to decide what data is downloaded from a handset. This is handy when the user only needs the call log from a handset, for example.

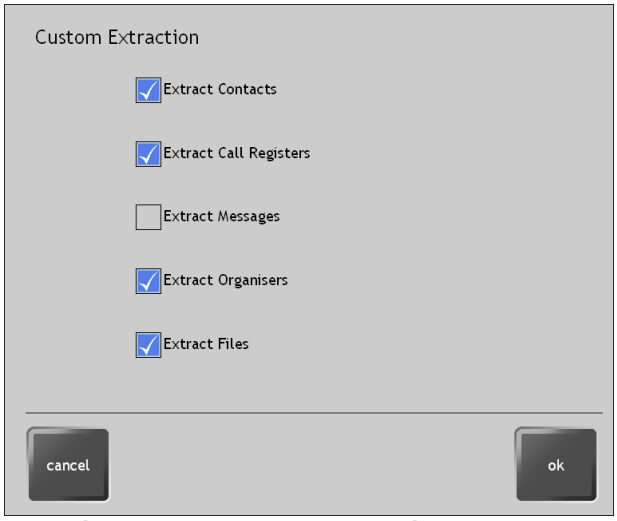


Figure 43 – Custom Extraction Screen

Tap the radio buttons to download or skip different data types. Press ***OK*** when finished.

Any data not read will appear in the capture report as "User chose not to extract _____".

NOTE: "Extract Files" refers to all image, movie, sound and other files found in the Extended Data portion of a capture.

SIM Cards and Flash Memory Card Connection

SIM Cards and Flash Memory Cards require no special Connection procedures. Once the card is connected, data will begin to extract as outlined in **Chapter 3 – Capturing Data**.

Main Connectivity Icons

The Connectivity Option Screen uses distinct icons to show what data can be pulled from supported phones with different connection options.

ICON	DESCRIPTION	ICON	DESCRIPTION
	IMEI Number		Sent SMS Message
	Time		Saved SMS Message
	Date		Calendar Entries
	Contact List (ADN)		Tasks
	Dialed Calls		Audio Files
	Received Calls		Image Files
	Missed Calls		Video Files
	Read SMS Message		Other Files
	Unread SMS Message		**NOTE:** Presence of this symbol next to the icon denotes that the data is extracted with relevant timestamps.
	Multimedia Message – SMS messages that can include attachments.		Other Files

Table 1 – Connectivity Icon Table

Other connectivity Icons

The Connectivity Option Screen also tells whether a handset supports extraction through a NIC card or if the handset can be accessed without its SIM card.

Network Isolation (NIC) Cards and SIM Card ID Cloning

CellDEK has the ability to isolate many handsets from the mobile network by using a Network Isolation Card (NIC). NIC cards are placed in the SIM card slot of the handset.

There are three categories of support for this feature.

- Handsets that support this feature are displayed with a blue NIC icon.
- Handsets that do not support this feature are displayed with a blue NIC icon crossed with a red line.
- Handsets that are untested for this feature are displayed with no NIC icon.

Figure 44 – Phone Model Selection Screen

Figure 45 – Connectivity Option Screen

A NIC card is included with each CellDEK. Additional Network Isolation Cards can be purchased from your CellDEK supplier.

Any CellDEK unit running software ver. 1.7.0.0 or later is able to support Network Isolation Cards (NIC). These cards replace the handsets SIM card and isolate the handset from its network while allowing a normal examination to take place.

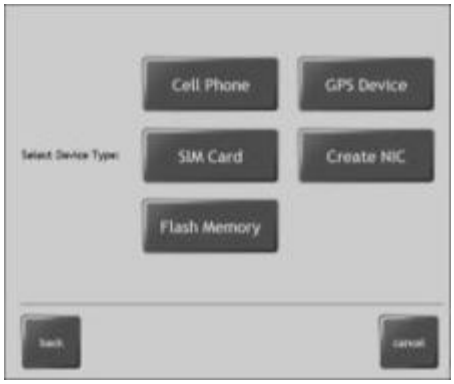
CellDEK ver. 1.20.0 and higher include the following features:

- Create from Existing SIM
- Manually enter NIC data
- Create Test NIC

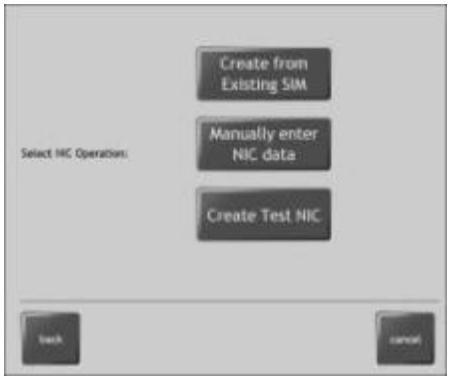
An explanation and summary for each method is included in the step-by-step instructions below.

SIM Card ID Cloning Step-by-step

To perform SIM Card ID cloning, tap ***Read New Device*** from the main menu. The device type selection screen will appear.



Tap ***Create NIC***. The NIC Operation screen will appear.



- **Create from Existing SIM -** CellDEK will clone the original SIM card ID. It will copy the ICCID and IMSI from original SIM card onto a NIC (SIM ID Card). The ICCID and IMSI on NIC must be identical to original SIM. NIC (SIM ID Card) ICCID and IMSI values can be checked by performing a SIM Card Extraction of NIC.

  This method is useful when the original SIM card is available.

1. From the NIC Operation screen, tap ***Create from Existing SIM***.
2. Place the SIM card into the SIM card adapter then insert the adapter into the reader. Tap ***OK***.

3. CellDEK will read the inserted SIM card. After this process, the following screen will appear:

4. Remove the SIM card from the adapter and place the NIC (SIM ID Card)into the same adapter. Insert the adapter into the reader then tap ***OK***. CellDEK will now create the NIC (SIMID Card). When this process finishes, the screen below will appear. Tap ***OK***.

Successfully created NIC
This NIC has been designed for network isolation purposes only. It is not an exact copy of the original SIM and only stores a subset of SIM data
OK

5. CellDEK will prompt whether a phone is compatible with Network Isolation Cards. Selecting ***No*** will finish the process and bring the user back to the CellDEK main screen. Selecting ***YES*** to the screen below will prompt the user to identify the phone to be used with the NIC (SIM ID Card). After selecting the phone, one of the following two screens will appear. Tap ***OK*** to finish he process and go back to the CellDEK main screen.

- **Manually enter NIC data** - CellDEK will create a NIC (SIM ID Card) by writing valid ICCID and IMSI values entered by the user.

  This method is useful when the original SIM card is not available. To find out the correct ICCID or IMSI numbers, please contact the handset's network provider.

  Valid ICCID numbers are 19 or 20 digits long and include the following:

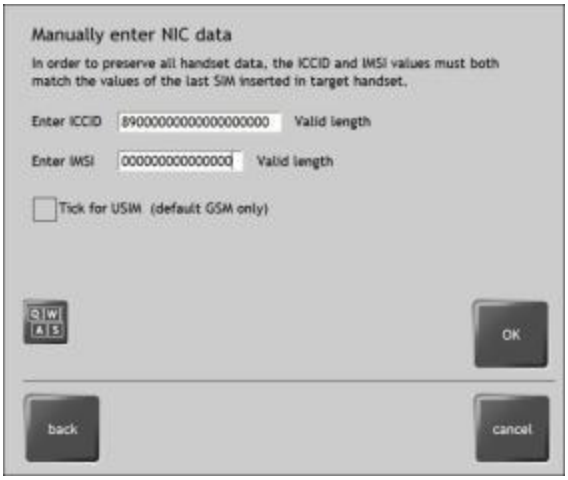
  - The first 2 digits represent the Major industry identifier (89 for telecommunications)
  - 1-3 digit Country Code
  - 1-4 digit Issuer ID
  - Variable length individual Account ID

  Valid IMSI numbers are 15 digits long and include the following:

  - The first 3 digits represent the Mobile Country Code (MCC).
  - The next 2 or 3 digits represent the Mobile Network Code (MNC).
  - The next digits represent the mobile station identification number. Normally there will be 10 digits but would be fewer in the case of a 3-digit MNC or if national regulations indicate that the total length of the IMSI should be less than 15 digits.

    NIC (SIM ID Card) ICCID and IMSI values can be checked by performing a SIM Card Extraction of NIC.

  1. From the NIC Operation screen, tap ***Manually enter NIC data***.
  2. Use the virtual keyboard (or an attached USB keyboard) and enter the ICCID and IMSI values. When finished, tap ***OK***.


Manually enter NIC data
In order to preserve all handset data, the ICCID and IMSI values must both match the values of the last SIM inserted in target handset.
Enter ICCID
8900000000000000000
Valid length
Enter IMSI
000000000000000
Valid length
Tick for USIM (default GSM only)
OK
back
cancel

3. Place the NIC (SIM ID Card) into the adapter and insert the adapter into the reader. Tap ***OK***.

4. CellDEK will now create the NIC (SIM ID Card). When this process finishes, the screen below will appear. Tap ***OK***.

Successfully created NIC
This NIC has been designed for network isolation purposes only. It is not an exact copy of the original SIM and only stores a subset of SIM data
OK

5. CellDEK will prompt whether a phone is compatible with Network Isolation Cards. Selecting ***No*** will finish the process and bring the user back to the CellDEK main screen. Selecting ***YES*** to the screen below will prompt the user to

identify the phone to be used with the NIC (SIM ID Card). After selecting the phone, one of the following two screens will appear. Tap ***OK*** to finish he process and go back to the CellDEK main screen.

- **Create a test NIC -** CellDEK will attempt to write default ICCID and IMSI onto a NIC (SIM ID Card). The default values are:

  ICCID = 894900050701001429

  IMSI = 001010123456789

  A warning will appear after creating a test NIC:

  "A Test NIC can be used to access handset data but should only be used as a last resort. Inserting into a handset may cause data to be lost or changed"

  NIC ICCID and IMSI values can be checked by performing a SIM Card Extraction of NIC.

This method should be used as a last resort if none of the previous methods work. It is important to understand that incorrect ICCID or IMSI data may cause data on the handset to be lost or changed.

1. From the NIC Operation screen, tap ***Create Test NIC***.
2. Place the NIC into the adapter and insert the adapter into the reader. Tap ***OK***

3. CellDEK will now create the NIC (SIM ID Card). When this process finishes, the screen below will appear. Tap ***OK*** to finish the process.

Successfully created NIC
A Test NIC can be used to access handset data but should only be used as a last resort. Inserting into a handset may cause data to be lost or changed
OK

Extraction without a SIM Card

CellDEK can extract data from many handsets with the SIM card removed. If a handset's SIM is PIN locked this feature allows an extraction of the handset with the SIM removed. If supported, this feature is displayed in the Connectivity Screen.

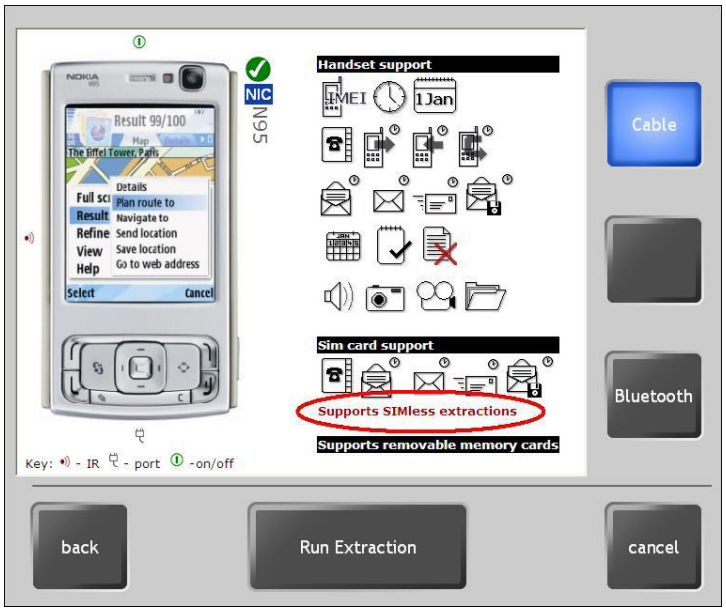


Figure 46 – Connectivity Option Screen

Capturing Nokia Handsets

Certain Nokia Handsets require special adapters in order to extract data. This section deals with two major topics: Installing the CA-42 Cable and using Nokia Flash adapters to connect to a handset.

Nokia CA-42 Cable Installation

The Nokia CA-42 Cable that is provided with CellDEK is different than the other cables. It resides in the storage compartment and not in the connector rack. As such it needs to be installed on the CellDEK prior to use. To install the cable:

1. Boot the CellDEK to the Main Application Screen.
2. Attach the CA-42 Cable to the USB port. Wait for the USB connection tone. (It may take over a minute for the tone to be heard).
3. Remove the cable. It is now ready to be used for extractions!

Nokia Flash Adapters

The CellDEK is able to connect to certain Nokia handsets through the use of specialized adapters from Nokia. Refer to chapter 7 for a list of Nokia handsets that are supported and the corresponding adapters.

Attaching Nokia Flash Adapters

Follow these steps to attach a flash adapter to a Nokia handset:

NOTE: This demonstration uses a Nokia 1100, but the procedure is similar for other models.

Figure 47 – Nokia 1100 Handset

16. Power the handset off.
17. Remove the back cover and the battery. Leave the SIM card in place.

Figure 48 – Handset Battery Removed

NOTE: The time and date on the handset may be changed when the battery is removed.

18. Locate the data pins in the battery compartment of the handset. You may need to remove a small, black plastic cover.

Figure 49 – Data Pins

19. Place the appropriate adapter inside the handset so that the adapter's data pins touch the pins of the handset.

Figure 50 – Adapter Data Pins (circled)

20. Insert the lower part of the adapter first, then snap the upper part of the adapter into place.

Figure 51 – Adapter in Handset

21. Insert the handset's battery into the adapter by aligning the battery pins. Push the battery in and down until it snaps into place.

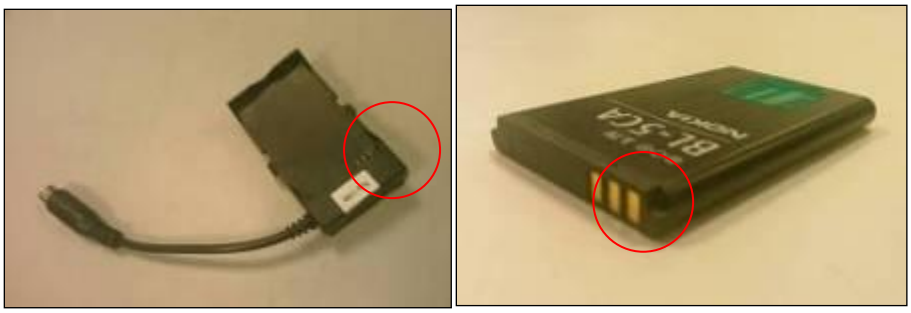


Figure 52 – Battery Pins on Adapter and Battery (circled)

22. When properly assembled, the handset should look like the picture below:

Figure 53 – Installed Flash Adapter

23. Power the handset on, and perform the data extraction with Cable 25 as outlined in the "Cable Connection" section earlier in this chapter.

Figure 54 – Connected to Cable 25

3. Capturing Data

Case Details

Once the target device has been successfully connected, the Case Details input form appears:

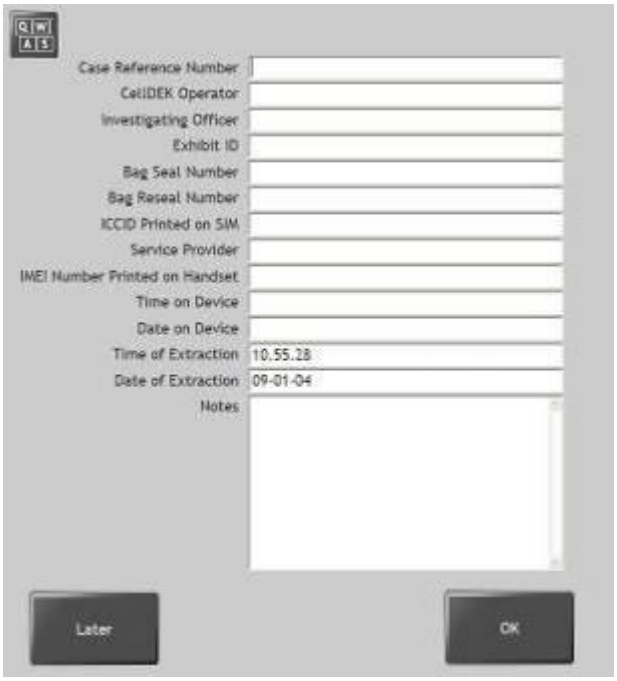


Figure 55 – Case Details Input Form

1. If the report will be filled out later, tap the ***Later*** button to continue on to data extraction.
2. If the report is to be filled out now, tap the first line that needs to be filled out.
3. The CellDEK keyboard will automatically open. The keyboard allows the use of upper/lower case letters, numerals and other characters, however not all characters have been validated. The CellDEK will display one of two types of keyboards.

NOTE: The keyboard is also accessible from any screen that displays the button to the left.

Figure 56a –Alphanumeric Keyboard

Figure 56b – Alphanumeric Keyboard

NOTE: Alternatively, a USB Keyboard can be attached to the CellDEK through the USB port.

4. Enter the information and tap the ***Enter*** key when finished.
5. Repeat steps 2 – 4 for each line that needs to be filled out.
6. Tap the ***OK*** button once all of the information is filled out. The fields entered will be built into the final report, which is generated on completion of the extraction.

Other Notes

Certain fields will show users a list of previous entries. These entries can be dropped into the field without retyping them. The Case Details form will remember the last 20 entries for the following fields:

- Case Reference Number
- CellDEK Operator
- Investigating Officer
- Exhibit ID
- Service Provider.

The Case Details Form can be opened and edited for previous extractions.

Data Extraction

Searching for Drivers

Sometimes, CellDEK may need to load new drivers for a handset that has never been attached before. A progress bar will appear briefly that indicates drivers are being loaded. The capture session will continue once the drivers are loaded.

Note: Allow sufficient time for the driver to load.

Standard Data Extraction

Once a target device has been identified and connected, the CellDEK software will prompt the user to continue. Doing so starts the extraction process for “standard data”.

Standard data includes such information as Contacts, Call Logs, SMS Text Messages and Organizer data.

As the data is being extracted, CellDEK will show the progress in the Activity Log on the screen:

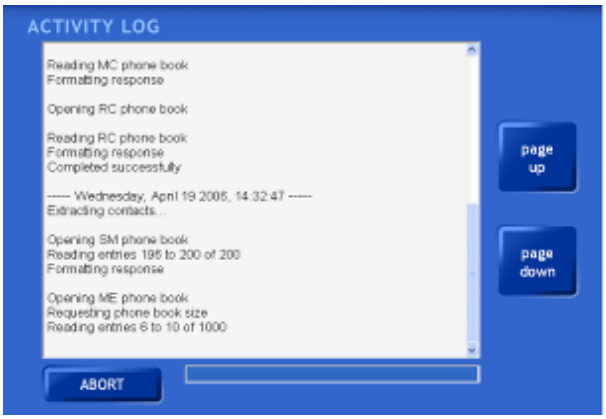


Figure 57 – Activity Log

Abort Capture

The capture process can always be aborted by tapping the ***Abort*** button during the capture operation. This button is located underneath the Activity Log. If the button is pressed a prompt will appear:

Figure 58 – Abort Capture Prompt

This prompt will allow the user to skip the current capture operation (i.e. downloading contacts) or abandon the whole capture session. Pressing the Abandon button will go back to the Main Application Screen.

Extended Data Extraction

"Extended Data" refers to such items as Image files, Video files, Audio files and any other files such as themes, screensavers, etc.

When the standard data has been extracted, the user is given the option to select and download other files from the target device.

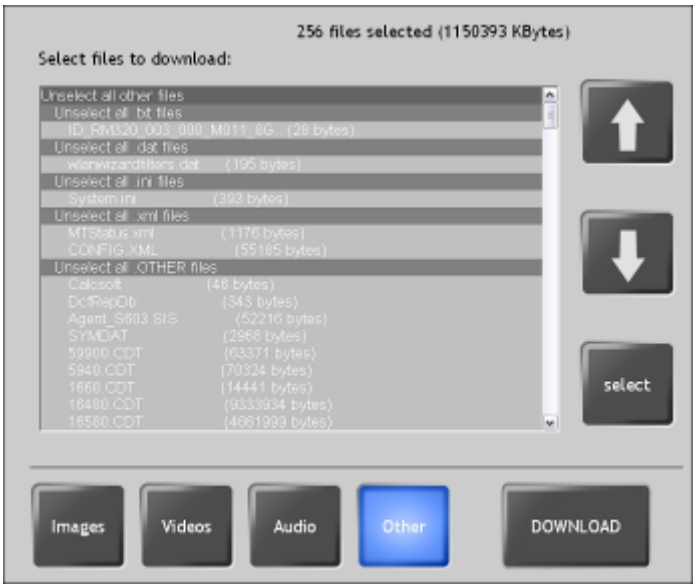


Figure 59a – Data Download Selection Screen

1. Tap the ***Images*** Button at the bottom of the screen, CellDEK will display all supported

Image files that were found in the target device's memory.

2. Select an Image file for download by tapping once on it. Tap a second time to deselect the file. Scroll through the list and tap any other files that are desired.

3. Repeat Steps 1 – 2 for the "Video", "Audio" and "Other" buttons.

   NOTE: Select all files of a particular type by tapping the "Select all <.ext> files" bar.

4. As files are selected, CellDEK shows the number and size of total files at the top of the screen.

5. Once all needed files have been selected, tap the Download button. The Download Manager will show progress as the files are downloaded to CellDEK.

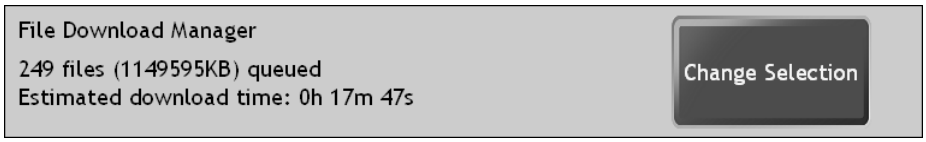


Figure 59b – Download Manager

6. At any time, press the ***Change Selection*** button to stop downloading and re-select the files to download.

7. As the files download, the Activity Log will indicate downloaded files in green, selected files not downloaded in gray and unselected files in white.

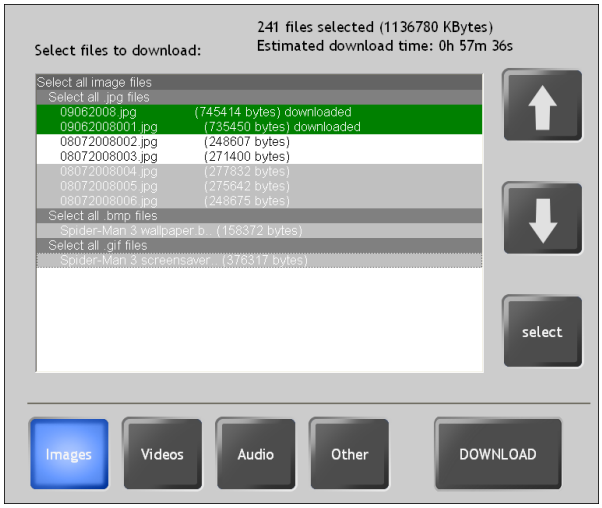


Figure 59c – Activity Log During Download

On completion of the download, a summary of all files, including listings for files not selected for download, will be displayed. The data received

from the target device is written into an .XML and a .CSV file, then stored in the case unique folder.

NOTE: The csv data file only contains data for Device Info, Call Logs, Contacts, and Messages.

Support for Non-Latin Languages

All handsets supported by CellDEK have had full validation of each feature carried out for the full range of Latin character sets (ASCII programming language).

CellDEK has also been further developed to extract information from Unicode languages that provide non-Latin character sets such as Greek and Arabic characters.

These extractions have not been verified although tests indicate the following:

- SIM cards (supported natively)
- Windows (supported natively)
- Nokia (supported natively)
- Sony Ericsson (full support, Unicode development implemented: an option has been implemented to allow the user to extract in ASCII if required)
- Samsung (partial validated Unicode support - for messages only)
- Motorola (partial support, Unicode development implemented: an option has been implemented to allow the user to extract in ASCII if required)
- Siemens (partial i.e. validated Unicode support for handsets contacts and notes)

If CellDEK does not extract a character; it will appear as a square on the screen.

Special Note for Motorola and Sony Ericsson

The extraction of Unicode characters for all data sets has not been verified for Motorola and Sony Ericsson devices.

Before an extraction begins with one of these devices the CellDEK will offer the user a choice:

1. Extract validated data set only. This means that some Unicode data will not be extracted.
2. Attempt to extract all Unicode data. Software will try to extract Unicode

characters for all data sets on the device. At this time the output in this case is not guaranteed by validation testing.

Other Data Extraction Notes

Data Captured from Android (Google)

CellDEK has the capacity to extract information from mobile devices that use Google's Android operating system. Extracted data includes: Contact details, Call Logs, SMS messages, Calendar/Tasks and Files. CellDEK supports extraction of contacts database on handsets running on Android 2.2 operating system.

Before an extraction can be performed, users must:

1. Tick "Unknown Sources" and "USB debugging" in the target devices application settings.

2. Ensure the target device has a formatted SD Card inserted.

The Android extraction process requires the use of an application (Agent) which is automatically installed onto the target device and executed. The Agent extracts data from the device and stores in a temporary file called ANDDAT on the devices SD Card. (**\sdcard\ANDDAT**). At the end of the extraction, the ANDDAT file is deleted from the card and the Agent is automatically uninstalled.

Support for Android ad-hoc Rooting

CellDEK software version 1.21.x.x and newer can temporarily root Android OS devices. This allows access to all user data stored on the device. Ad-hoc rooting does not work with all Android devices. Rooting is removed after the device is restarted. Please check with local laws governing rooting prior to using.

- Compatible with the majority of Android OS devices
- Android OS versions 1.6-2.3 are supported
- Gives access to the whole file system. After rooting/data/data and/data/misc folders of Android device internal memory are available for analysis. Without root permissions these folders are inaccessible.
- 100% successful rooting is not guaranteed

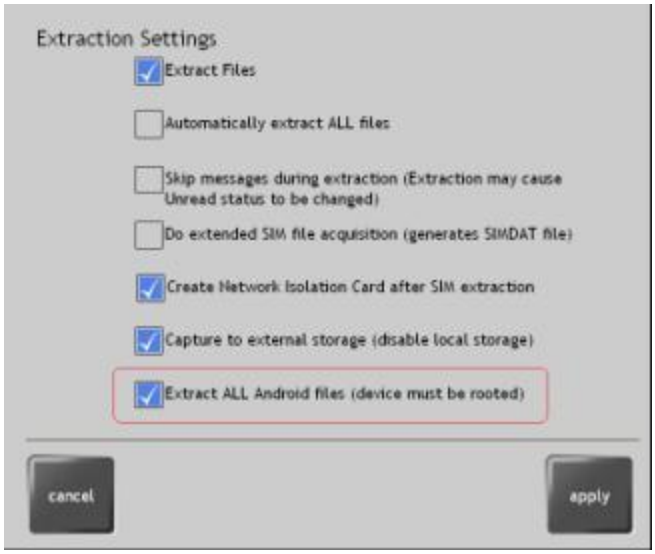
Ad-hoc rooting will provide the following features:

-Allows user to access the whole device file system
-Deleted data in database tables (deleted contacts, messages, etc.)
-Pre-installed and custom applications with user data
-Yahoo! Mail and Google Mail application data
-Google Maps, Google Talk and Google Calendar application data
-Dropbox application data

Ad-hoc device rooting is not required for the data extraction of Call Logs, Phonebook and Messages.

When performing an Android extraction, CellDEK will ask if you want to temporarily "Root" the Android device. If successful, the device will remain rooted until turned off.

In the ***Extraction Settings*** there is a new option called ***"Extract ALL Android Files (device must be rooted"***. When checked, and the Android device is rooted, ALL file locations will be extracted. Please note this may take a long time to complete the extraction.


Extraction Settings
Extract Files
Automatically extract ALL files
Skip messages during extraction (Extraction may cause Unread status to be changed)
Do extended SIM file acquisition (generates SIMDAT file)
Create Network Isolation Card after SIM extraction
Capture to external storage (disable local storage)
Extract ALL Android files (device must be rooted)
cancel
apply

If the device is not rooted, only the following file locations will be extracted:

/sdcard/

If the device is rooted and the checkbox for 'Extract ALL Android files' is not checked, only the following file locations will be extracted:

/sdcard/
/data/data/
/data/misc/

Android files of Interest

The Android extraction can extract system files *. Some of these files may contain useful information. These files are described below: -

- ***\data\data\com.google.android.location\files\cache.wifi***
  Contains cached WIFI details.
- ***\data\data\com.android.providers.userdictionary\databases\user_dict.db***
  Containing cached user entered text
- ***\data\data\com.google.android.gm\databases\gmail.db***
- ***\data\data\com.google.android.gm\databases\mailstore.*.db***
  Contains Google email account and mailstore databases
- ***\data\data\com.google.android.talk\shared_prefs\BuddyList.xml***
  Contains Google Talk contact details
- ***\data\data\com.android.providers.calendar\databases\calendar.db***
  Contains Google calendar details
- ***\data\data\com.yahoo.mobile.client.android.mail\databases\mail.db***
  Contains Yahoo email details

NOTE: Device must be rooted to acquire some of these files.

Data Capture from Apple iPhone

Support for MMS was introduced in version 3.0 of the iPhone software.

CellDEK now extracts MMS messages from Apple iPhone handsets that have version 3.0 and above.

MMS messages will be automatically extracted and will be added to the output report ina separate chapter entitled "MMS Messages".

CellDEK now supports extraction of Skype data from Apple iPhones. Extracted data includes;

- Voice/Video calls

In the extraction report, Skype voice/video calls are shown under the Call Register section

- Chat messages

In the extraction report, Skype chat messages are shown in the Messages section

- User profiles

In the extraction report, Skype user profiles are shown in the Contacts section

iPhone Dictionary Data

CellDEK software version 1.21.x.x and newer reports a list of keywords extracted from the following iPhone file: *dynamic-text.dat.* These keywords are shown in the report under the dictionary heading.

iPhone files of Interest

During the iPhone extraction process a number of 'other' files can be extracted. Some of these files may contain useful information.

A selection of these files is shown below:

- ***private\var\mobile\Library\Cookies\Cookies.plist***
  Contains website cookies saved by the Safari browser.
- ***private\var\mobile\Library\Safari\Bookmarks.db***
  Contains website bookmarks saved by the Safari browser.
- ***private\var\mobile\Library\Safari\History.plist***
  Contains website history saved by the Safari browser.
- ***private\var\mobile\Library\Mail\Accounts.plist***
  Contains email server account details, this does not include actual emails.
- ***private\var\mobile\Library\maps\History.plist***
  Contains a 'Google Maps' history file which includes addresses, route directions and other useful data.
- ***private\var\mobile\Library\Keyboard\dynamic-text.dat***
  A keyboard cache containing user entered text.
- ***private\var\mobile\library\Preferences\com.apple.Maps.plist***
  Contains the last longitude/latitude coordinates viewed in the 'Google maps' application.
- ***private\var\mobile\library\Preferences\com.apple.mobilesafari.plist***
  Contains a list of recent searches performed using the Safari browser
- ***private\var\root\library\caches\locationd\consolidated.db***
  Contains a list of web connections and location services
- ***private\var\mobile\library\Calendar\Calendar.sqlitedb***
- ***private\var\mobile\library\Preferences\com.apple.mobilecal.plist***
  Contains Google calendar details
- ***private\var\mobile\library\WebKit\Databases\Databases.db***
- ***private\var\mobile\Library\WebKit\Databases\http_m.yahoo.com_0*.db***
- ***private\var\mobile\Library\WebKit\Databases\https_mail.google.com_0*.db***

Contains email database details

- **\private\var\mobile\Applications\com.yahoo.messenger\Library\Preferences\com.yahoo.messenger.plist**
- **\private\var\mobile\Applications\com.yahoo.messenger\Documents*.db**
  Contains a list of Yahoo Instant Messenger files

Note: The content of these files has not been verified.

Data Capture from Symbian OS

CellDEK now has the capacity to extract information from mobile handsets that use the Symbian operating system (Series 60 / Nokia Symbian OS V 8.1). Extracted data includes Contact Details, Call Logs, SMS messages, Calendar, Tasks and Files.

This data capture is possible with the following caveats:

No SIM data is extracted from Symbian handsets.

"Nicknames" are not extracted.

Cannot extract any SMS messages stored in 'My Folders' directory or other user created folders.

To extract data, it is necessary for CellDEK to write temporary .dat files to the target phone. These files are removed at the end of capture.

Capture from Symbian UIQ 2nd & 3rd Edition OS

CellDEK now has the capacity to extract information from mobile handsets that use the Symbian UIQ 2nd and 3rd Edition OS. Extracted data includes Contact Details, Messages, Calendar, Tasks and Files.

Data capture requires a handset Agent and the use of a CellDEK UIQ memory card. This is a specially prepared card by CellDEK to temporarily store and transfer data.

WARNING: Do not create the UIQ memory card from the card used inside the handset. Always use a separate blank, formatted card that is not write protected.

Use these memory cards for best results:

Sony Ericsson

P800 / P900 Memory Stick Duo, minimum size 16MB

P910i / P990i Memory Stick PRO Duo, minimum size 64MB

M600i / P1i Memory Stick Micro (M2), minimum size 256MB

Motorola

Z8 / Z10 Micro SD, minimum size 128 MB

Follow these steps to capture data:

1. User inserts spare memory card into the memory card reader.

24. CellDEK generates and formats a UIQ card and installs the Agent.
25. User then inserts the UIQ card into handset.
26. User locates the Agent installer on the UIQ card using the file browser application and then installs the agent onto the device.
27. User locates and runs the Agent application, then waits for the data extraction to complete. ***Extracted data is now stored on the UIQ card.***
28. User removes the UIQ card from the handset and inserts it back into the memory card reader.
29. CellDEK automatically copies and decodes all data from the UIQ card.
30. CellDEK formats the UIQ card.
31. CellDEK instructs the user to uninstall the agent from the handset.
32. CellDEK presents the results to the user.

This data capture is possible with the following caveats:

Extraction of Call Logs is not supported.

Extraction of SMS messages stored in user created folders is not supported.

Extraction of MMS / Email messages is not supported.

Memory cards within these phones need to be captured separately. (Please refer to "**Capturing a Flash Memory Card**" earlier in this chapter).

Symbian Event Logs

Symbian S60 2nd Edition and 3rd Edition handsets have the ability to record events which CellDEK can now extract.

The following information can be extracted:

- Voice Call events – ID, Number, Date, Time, Direction and Duration
- SMS events – ID, Number, Date, Time, Direction, Message Fragment and Status
- MMS events – ID, Name, Date, Time, Direction and Duration

These events are normally accessed by the handset's Log Viewer application. These events have a validity period set in the Log Viewer settings. Once this duration period has expired, events will no longer be accessible.

Points of Interest

- Timestamps extracted by CellDEK are always reported in Greenwich Mean Time (GMT) whereas the timestamps shown in the handset's Log Viewer application are set to the handset's current time zone.

- CellDEK is able to extract message fragments for SMS events. These are not displayed by the Log Viewer application. Only the first 64 characters of a message are reported any messages greater than 64 characters are truncated in the event log, including multipart messages where only the first 64 characters of the first message part are reported.

- Incoming MMS messages are shown as 2 separate events, 1 incoming SMS event and 1 outgoing MMS event. CellDEK extracts both of these events. The SMS event has a body fragment of *Data Message*

The following Symbian S60 handsets are verified on CellDEK:

NOKIA: 3230, 3250 5320XpressMusic, 5500 Sport, 5700, 6120, 6220 Classic, 6260, 6290, 6620, 6630, 7610, E50, E51, E61, E63, E65, E66, E70, E71, N70, N71, N72, N73, N76, N77, N79, N80, N81, N82, N85, N90, N91, N93, N93i, N95, N95 8GB

SAMSUNG: I8510, SGH-D720, SGH-G810

Data Capture from Sony Ericsson Phones

If the User runs into trouble capturing data from a Sony Ericsson phone (or any other handset that connects to Cable #18), users should make sure that the "Default Contacts" setting on the target

handset is set to “Phone Contact” before an extraction is performed.

This is done by navigating manually on the phone’s menus as follows:

Menu > Contacts > Options > Advanced > Default Contact > Select “Phone Contact”.

Once this setting is enabled, users should have no trouble extracting data from the handset.

Unlocking Sony Ericsson Handsets

CellDEK is able to deactivate Sony Ericsson handset lock codes of up to 8 digits.

Some handsets may not be able to establish a USB connection whilst the handset lock is active. In this case CellDEK will first attempt to locate device drivers then ask the user to confirm the handset is locked.

Figure 60a

If yes the user is instructed to restart the handset and re-connect it before the unlock code screen appears.

Connecting a handset locked Sony Ericsson
Instructions
1. Disconnect phone from CellDEK
2. Power phone off
3. Power phone back on
4. Quickly reconnect phone to CellDEK before the "Phone lock code" screen appears
After the phone has booted up, the enter "Phone lock code" screen will appear. Once it has, click OK to continue.
OK

Figure 60b

Tap OK to unlock the handset.

NOTE: Depending on the code that has been set CellDEK may take some time to unlock the handset.

Below is a guide as to how long unlocking may take. To attempt to unlock:

- All 4 digit codes up to 4 mins
- All 5 digit codes up to 40 mins
- All 6 digit codes up to 7 hours
- All 7 digit codes up to 3 days
- All 8 digit codes up to 30 days

The Activity log shows the progress of the unlocking process

ACTIVITY LOG
----- Thursday, April 16 2009, 14:54:15 -----
Attempting to connect to phone
Attempting to unlock phone using pin with 4 digits
(Trying default pins)
Attempting to unlock phone using pin with 5 digits
(Trying default pins)
Attempting to unlock phone using pin with 6 digits
(Trying default pins)
Attempting to unlock phone using pin with 7 digits
(Trying default pins)
Attempting to unlock phone using pin with 8 digits
(Trying default pins)
Attempting to unlock phone using pin with 4 digits
(Trying all combinations)
Attempting to unlock phone using pin with 6 digits
(Trying dates in the form day month year)
Found PIN code: 150577
----- Thursday, April 16 2009, 15:03:32 -----
Phone code has been entered successfully. Allowing time for device to
clear log

Figure 60c

NOTE: The unlocking process can be cancelled at any time. However data extraction cannot be performed on a locked handset. If the process is cancelled without finding the unlock code, it will need to be started again to unlock the handset.

Once the handset has been unlocked data extraction will be performed automatically. The unlock code is displayed in the Device Information section of the report.

Figure 60d

NOTE: CellDEK only unlocks the handset; it DOES NOT remove the handset lock. If the handset is restarted after the extraction the code will need to be re-entered.
NOTE: CellDEK cannot unlock handsets that do NOT contain a SIM card.

Blackberry PIN Numbers

Each Blackberry device is assigned a unique personal identification number (PIN), which allows identification of each device.

The PIN number of other Blackberry users is stored in the devices phonebook with their contact information and allows direct PIN-to-PIN emailing and messaging.

CellDEK extracts each contact PIN number from the phonebook as well as the PIN numbers associated with messages sent from other Blackberry users.

Time/Date Stamps from Motorola Phones

Users should note that Motorola timestamps / date stamps are not reported due to current limitations in how file “modified” and file “created” timestamps are reported in the Motorola OS. This will be remedied in a future software update.

Null Response from Siemens handsets

Occasionally, Siemens handsets have been known to return a NULL response when asked for data of a particular type (i.e. SMS messages). If this happens, the following error message will appear under the relevant data type:

Handset has been known to occasionally return a null response. Please refer to handset and retry extraction.

Users should check the affected field(s) on the handset and retry the extraction.

SMS Attached Content

SMS Messages can contain extra content other than standard text.

CellDEK now notifies the user when any extra content appears within an SMS Message.

NOTE: This feature is currently only supported for SMS extracted through handsets supporting AT commands. Reporting of attached content functionality is not supported for Blackberry, Symbian or WinMobile handsets.

Notifications appear within the body part of the message and describe the type of attached content.

Notifications appear in the following form:

[CONTAINS CLIPART REFER TO HANDSET]

SMS Messages may contain more than one type of attached content. CellDEK will display a notification for each piece of attached content within the message.

VCard and VCalendar Content

VCards and VCalendars are used to exchange information between application.

VCards store address book entries while VCalendars store organiser entries.

VCards and VCalendars can be attached to SMS Messages. CellDEK will now display the raw data of attached VCards and VCalendars within the body of the SMS Message.

VCard and VCalendar data will appear between the tags

[ATTACHEMENT: CONTACT DATA]

Or

[ATTACHMENT: CALENDAR DATA]

And will end with

[END ATTACHMENT]

As SMS Messages have a limited size VCards and VCalendars may span several messages.

In this case each part of the VCard or VCalendar will start with the tag

[ATTACHMENT CONT..]

To indicate the content follows from a previous message.

Each message part will also end with the tag below to indicate that more content will follow in the next message:

[…]

NOTE: VCard and VCalendar content is displayed in its raw format. Where VCards and VCalendars span more than one SMS Message, each part will need to be manually put together to form a valid VCard or VCalendar entry.

More information on VCards and VCalendars can be found at www.imc.org/pdi/

Customized Blackberry Extractions

CellDEK now allows users to specify which parts of a Blackberry Devices memory are extracted.

To use this feature select PDA from the read new devices menu and then select Blackberry.

On the following screen select Custom Extraction

Figure 60e

Here you have the ability to enable or disable features for that particular extraction. You can choose to download or skip the following:

- Call Registers
- Contacts
- Messages
- Organisers
- Files

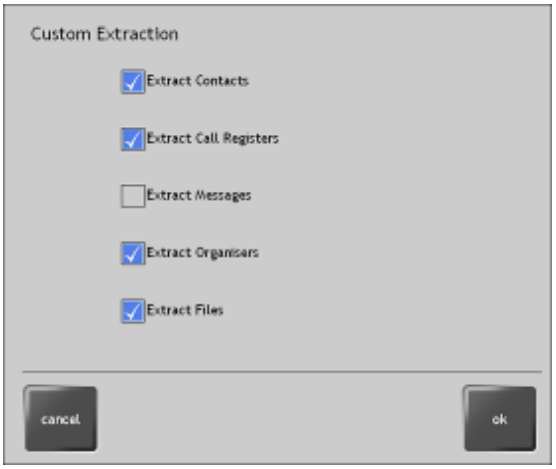


Figure 60f

Any memory not read will be flagged in the output report with the following message: “User chose not to extract xyz”

Various WinMobile Devices

The following mobile GPS software has been verified and can be extracted from supported devices using CellDEK:

- Google Maps Mobile (Various Windows Mobile devices)

Other Extraction Notes

CellDEK can now playback W4A files that have been extracted from devices.

W4A files are audio files that can be created on some mobile handsets.

4. Analyzing Captured Data

Displaying Extracted Data

Once the extraction for standard and extended data is complete, the data is displayed onscreen prior to the generation of the CellDEK report. All data is individually hashed using the MD5 algorithm to ensure that the data can be verified as unchanged.

The Standard and Extended Data View Screens both contain the following navigational buttons:

Case Details – This button opens the Case Details Input Form. Data can be edited or added to the form. Please refer back to **Chapter 3 – Capturing Data** for more information about this form.

Up Arrow – This button allows the user to scroll up through the Data List.

Down Arrow – This button allows the user to scroll down through the Data List.

Print – This button prints a copy of the list to a USB printer that is attached to the USB port. Please see **Chapter 5 – Other Features** for more information on printing.

Done – This button closes the data View Screen and goes back to the Main Application Menu.

Viewing Standard Data

Figure 61 – Standard Data View Screen

The Standard Data View Screen allows the user to view such information as contacts, call log, Text Messages, and Calendar data. The following buttons are unique to this screen:

Device Info – This button displays general handset information like the Brand Name, Model Number and IMEI number.

Contacts – This button displays all Contact information including names, phone numbers and other information.

Call Log – This button displays a list of calls dialed, received and missed.

Text Messages – This button shows all text messages sent and received.

Figure 62 – Captured Text Messages

MMS or Email Messages – If supported, CellDEK displays all captured MMS messages along with their attachments. For more details, please refer to the **MMS Messages** and **Email Messages** sections on the next page.

Organizer – This button shows information such as reminders, notes, etc.

Extended Data – This button opens the Extended Data View Screen.

NOTE: A "Not Extracted" message will appear for any data that CellDEK cannot pull from the target device.

Figure 63 – Time/Date Stamps Not Extracted

MMS Messages

MMS messages are basically SMS text messages with attachments. CellDEK automatically captures all MMS messages along with their attachments.

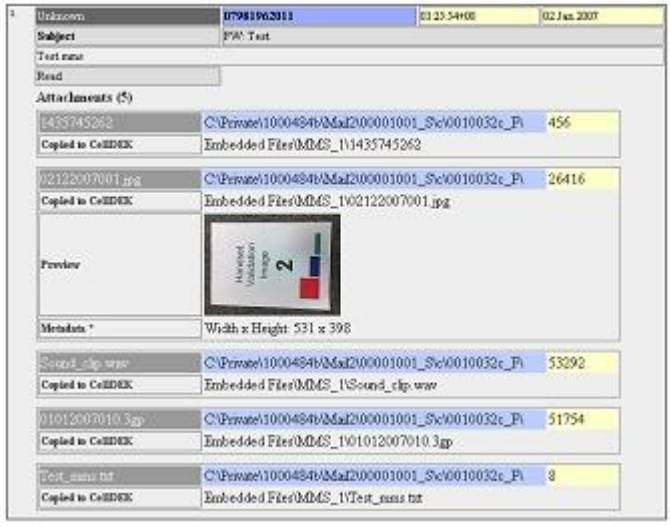


Figure 64 – Captured MMS Messages

In the example above, 4 MMS messages have been captured. The first message (displayed) contains 5 attachments with the following extensions:

.smil - This file is extracted from the handset and indicates how the media is grouped together on the handset.

.jpg - An image file.

.wav - An audio file.

.3gp - A video file.

.txt - The text of the message.

Any supported media types (i.e. .jpg, .wav, .3gp) can be viewed in CellDEK just like their extended data counterparts. Refer to the "**Viewing Extended Data"** section on the next page.

Email Messages

CellDEK is also able to capture Email messages from most Windows Mobile devices. These are handled the same way as MMS messages.

Figure 65 – Captured Email Messages

Viewing Extended Data

Figure 66 – Extended View Data Screen

The Extended Data View Screen allows the user to view such information as Image files, Video files, Audio files and Other files. The following buttons are unique to this screen:

Images – This button displays thumbnails of all Images that were downloaded during data capture. It also displays a list of the image files that were not downloaded.

Images can be viewed full size by tapping on the thumbnail to reveal the pan, rotate and print screen.

Figure 67 – Pan, Rotate and Print Image Screen

In this screen, tapping the image once causes it to rotate.

Drag the stylus through the “scroll image” area to pan left-right or up-down, (Arrow buttons are also provided for this purpose).

Tap the Print button to send a copy of the image to an attached USB Printer, (please refer to the “**Printing Reports**” section later in this chapter).

Double-tap the image to resize it so that the entire image can be seen.

Figure 68 – Resize Image Screen

Videos – This button displays all video files that were downloaded during data capture. It also displays a list of the video files that were not downloaded.

Downloaded videos can be viewed by tapping the file name.

Audio – This button displays all audio files that were downloaded during data capture. It also displays a list of the audio files that were not downloaded.

Like video, tapping the file name can play audio files.

Figure 69 – Play Video/Audio Screen

Other – This button displays all other files that were downloaded during data capture. The files are organized by type (i.e. .dat, .exe, .txt, etc.). It also displays a list of the other files that were not downloaded.

Standard Data – This button opens the Standard Data View Screen.

Displaying Previous Extractions

Previously extracted data files can be viewed by selecting "View Previous Extractions" from the main CellDEK window. Previous extractions are organized by date. Additionally, the user can search for a particular extraction by one of these choices:

- Case Reference Number
- Exhibit ID
- ICCID Number
- IMEI Number

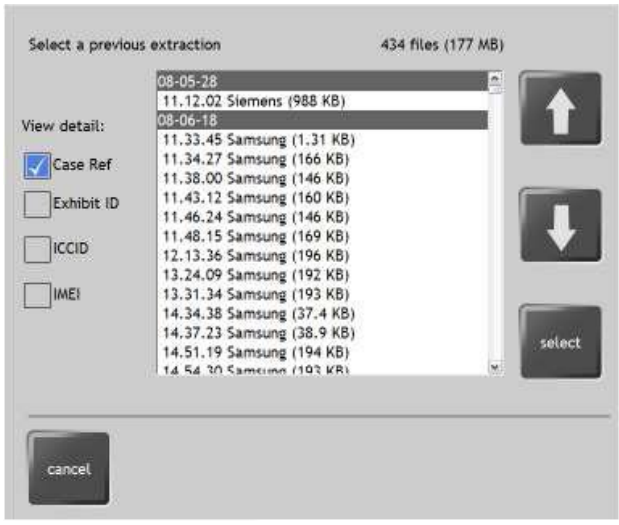


Figure 70 – Previous Extraction List

1. From the Main Application Screen, tap the ***View Device History*** button. A list of all previous capture sessions will appear.
2. Choose the desired search criteria from the ***View Detail*** list on the side of the screen.
3. Scroll to the desired capture session and tap it once to select.
4. Tap the ***Select*** button. The Standard and Extended Data Screens for that capture session will appear.

The Audit Trail

The audit trail is a set of two files that are generated along with the capture session.

Log.dat records all commands sent to and received from the target device. This includes AT commands.

Audittrail.txt records all data received from the target device.

All three files are stored and moved with the extracted data. They can be accessed once the capture session has been backed up to a USB storage device. They cannot be accessed from within CellDEK . Please refer to **Chapter 5 – Other Features** for more information on backing up files.

NOTE: Logicube Technical Support may ask the user to send a copy of **log.dat** for troubleshooting purposes.

The Report

The Extraction Report is generated as both a **.csv** and an **.xml** file. This allows the report to be imported into many different database utilities such as Microsoft Excel, Access, Lotus Notes, etc.

NOTE: The csv data file only contains data for Device Info, Call Logs, Contacts, and Messages.

For backing up extraction data and reports to a PC, please refer to the "**Managing Files**" section of Chapter 5.

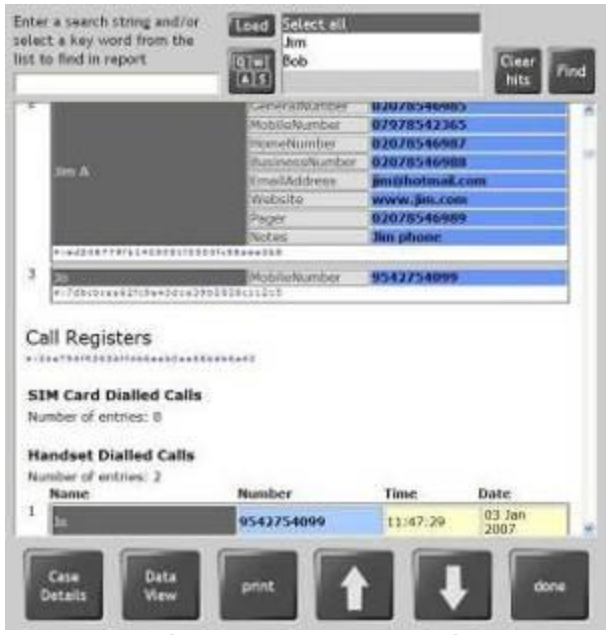


Figure 71 – Report Preview

Searching Reports

CellDEK is able to perform a simple word search on any capture report. Follow these steps to run a word search:

1. When the Report preview appears, tap the Keyboard button to bring up the alphanumeric keyboard.
2. Type the desired search word into the search field and tap the Find button.
3. Alternately, you can choose words from a pre-loaded list to search. This method allows for more than one word to be searched simultaneously.
4. Tap the words in the search list to select them, then tap the Find button.

5. Whichever method is used, CellDEK searches for the word(s) and displays the number of hits.

Figure 72 – Number of Hits

6. The report reappears with all word hits highlighted in yellow.

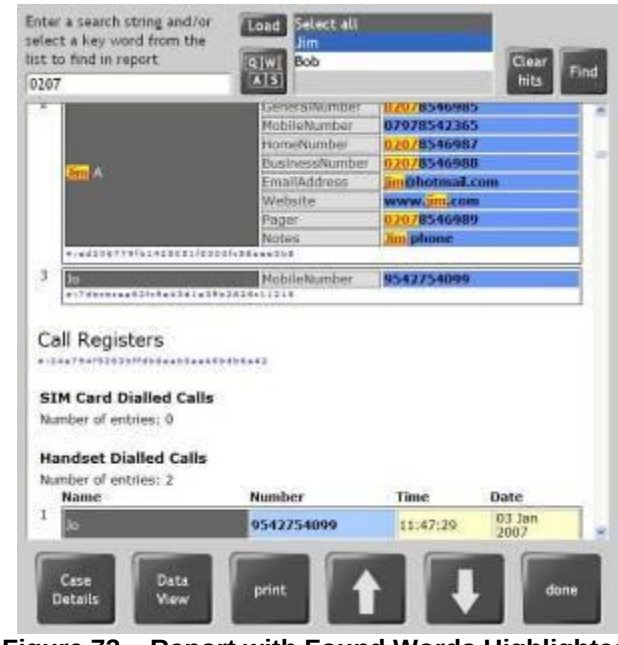


Figure 73 – Report with Found Words Highlighted

Loading a New Search List

The list of search words can be changed by importing a text file made on another computer:

1. On another PC, open Notepad or a similar text editor.
2. Type a simple list of words as shown in the next figure below. Words are not case sensitive so type in all lower-case.

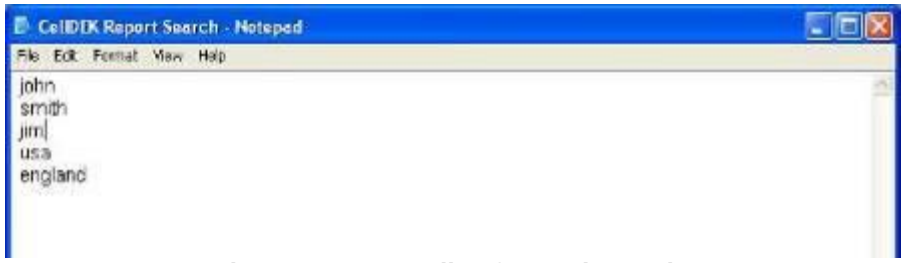


Figure 74 – Text File of Search Words

33. Save the file as “CellDEK report search.txt” and copy it to a USB storage device.
34. On the CellDEK, bring up Preview Report and tap the Load button.
35. A prompt will appear asking for a USB Storage Device.

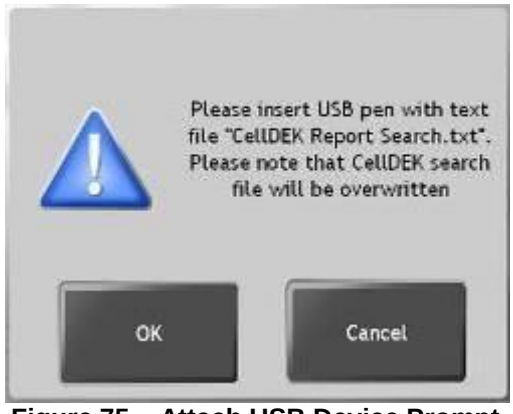

Please insert USB pen with text file "CellDEK Report Search.txt". Please note that CellDEK search file will be overwritten
OK
Cancel

Figure 75 – Attach USB Device Prompt

36. Attach the USB Storage Device and tap the ***OK*** button. CellDEK will automatically download the text file. The new search words will appear at the top of the screen.

Additional Report Searching Functionality

To highlight UNICODE ‘trigger’ words containing foreign characters a ‘CellDEK Report Searct.txt’ file needs to be created.

The file can be created using notepad and should include the ‘trigger’ word, followed by an arrow character (>), followed by the translation.

e.g. Couteau > Knife

Each entry should be stated on a new line and the file needs to be saved as Unicode format.

When the report is searched for the ‘trigger’ words, any hits will be highlighted and the translation will appear next to the word in square brackets.

Figure 76

NOTE: The reports can NOT be saved with the highlighted 'trigger' words. However, the report can be printed directly from the CellDEK with the highlighted 'trigger' words and translations.

CellDEK Report Builder

The CellDEK Report Builder is a separate software application that allows users to modify the data within a report. The report builder also enables the user to re-order the data shown in the final report. All user changes are highlighted in the final report to clearly distinguish between extracted and user added data.

Refer to the embedded help files within the application for more information.

CellDEK Report Builder has been tested on a Windows XP environment.

The Report Builder may also run on Windows Vista and Windows 7 but has not been tested on these operating systems.

CellDEK Report Builder Dependencies

The following dependencies are required to be installed before installation of the CellDEK Report Builder:

- Microsoft .NET framework 3.5 – available from www.microsoft.com
- Adobe Reader – latest version available from www.adobe.com

CellDEK Report Builder Installation

The CellDEK Report Builder is a separate software application intended to run on a PC or Laptop. It is not intended to be installed on a CellDEK device.

To install the CellDEK Report Builder, insert the CellDEK V1.16.0.0 or newer Update Pen Drive to your PC or Laptop ,navigate to the folder 'CellDEK Report Builder Installer' and run 'Setup.exe'

When the installer starts tap 'Next'

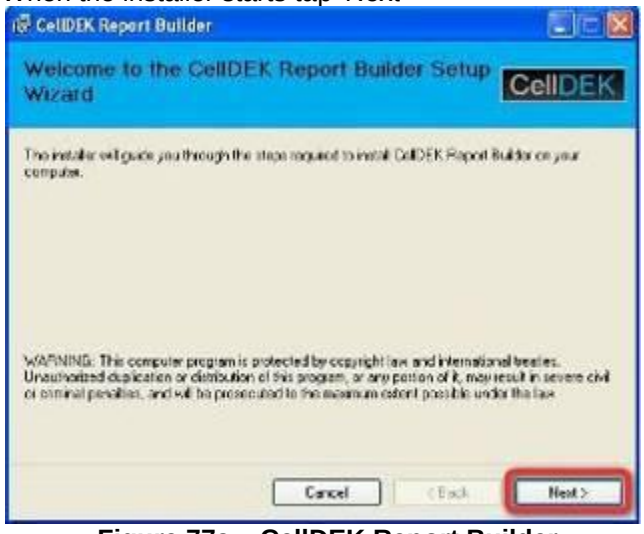

CellDEK Report Builder
Welcome to the CellDEK Report Builder Setup Wizard
CellDEK
WARNING: This computer program is protected by copyright law and international treaties.
Cancel
< Back
Next >

Figure 77a – CellDEK Report Builder

Select the folder to install CellDEK Report Builder to and tap 'Next'.

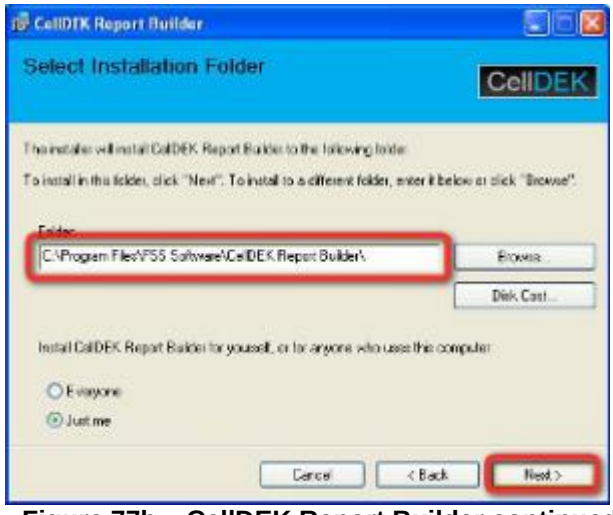


Figure 77b – CellDEK Report Builder continued

Tap 'Next' on the following dialog to begin the installation.

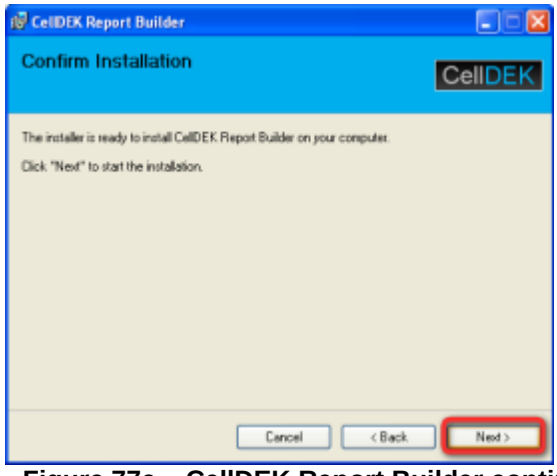

CellDEK Report Builder
Confirm Installation
CellDEK
The installer is ready to install CellDEK Report Builder on your computer.
Click "Next" to start the installation.
Cancel
< Back
Next >

Figure 77c – CellDEK Report Builder continued

Select 'I Agree' to accept the license agreement and tap 'Next'.

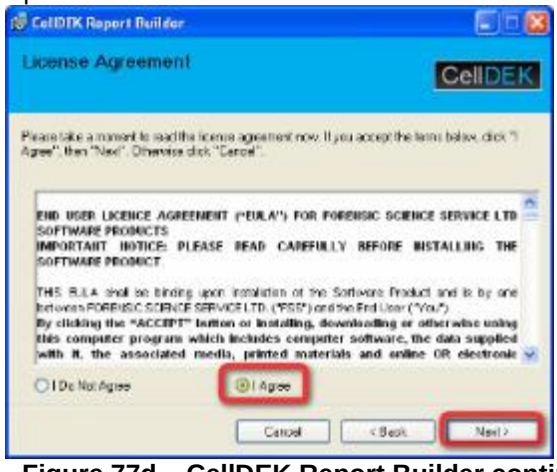

CellDEK Report Builder
License Agreement
CellDEK
END USER LICENCE AGREEMENT ("EULA") FOR FORENSIC SCIENCE SERVICE LTD SOFTWARE PRODUCTS
IMPORTANT NOTICE: PLEASE READ CAREFULLY BEFORE INSTALLING THE SOFTWARE PRODUCT
I Do Not Agree
I Agree
Cancel
< Back
Next >

Figure 77d – CellDEK Report Builder continued

When the installation is complete tap ‘Close’ to close the installer.

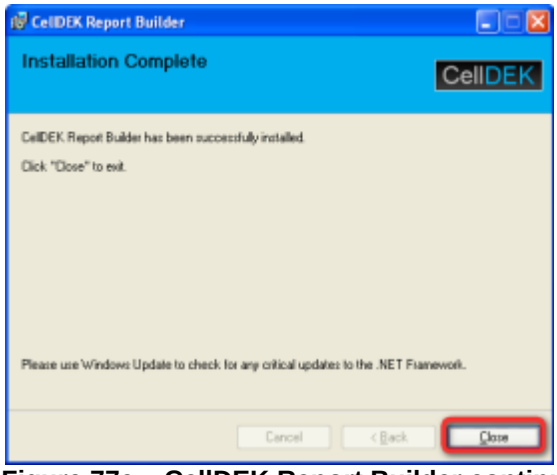


Figure 77e – CellDEK Report Builder continued

Printing Reports

CellDEK is able to use a Windows-compatible USB printer to generate hardcopies of reports, print images and other tasks.

NOTE: If a search is performed on the report, the printed report will also show all found words highlighted in yellow.

Connecting a Printer to CellDEK

Figure 78 – USB Printer

1. Power up the printer and insert paper.
2. Attach the printer’s USB cable to the USB port on the CellDEK Control Panel.
3. Tap the “Load Drivers Automatically” button that appears.

Once the USB printer is attached, reports can be printed from the Standard and Extended Data View Screens.

1. From the Standard/Extended Data View Screen, tap the “Case Details” button.

2. Make any changes (if necessary) to the Case Details Input Form and tap the OK button. A report will automatically generate.
3. Tap the “View Report” button to preview the report.
4. Tap the “Print Report” button to print a hardcopy of the report.

The report shows all information about the capture including target device information, standard data lists, extended data downloaded and lists of extended data not downloaded. It also includes a glossary of terms at the end of the report.

The report will also include the user’s company logo if it is added. Please refer to **Chapter 5 – More Features** for more details on adding a logo.

NOTE: Some reports can be many pages long. Be sure to review the report before printing.

Supported Printers

CellDEK supports any USB printer that is natively supported by Windows XP. Check with your printer manufacturer to determine if your printer supports Windows XP.

5. Other Features

Main Application Screen

This chapter discusses those features of the CellDEK Application that were not covered in previous chapters.

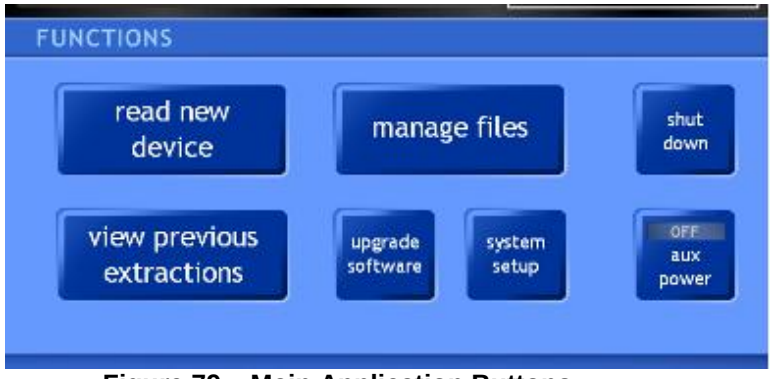


Figure 79 – Main Application Buttons

Manage Files

From time to time, previous capture sessions should be copied to an external storage device. This archives the data and frees up space in the CellDEK memory storage. Note all handsets must be disconnected from CellDEK prior to any file management tasks are performed.

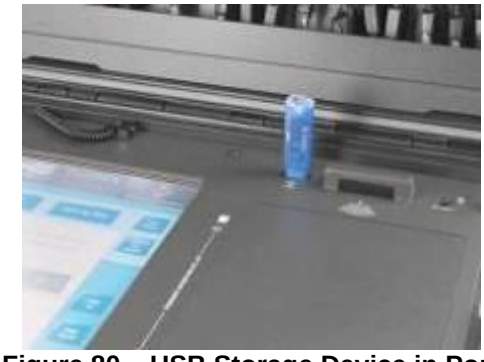


Figure 80 – USB Storage Device in Port

1. From the Main Application screen, tap the "Manage files" button.

2. The first prompt that appears asks whether the User wishes to Back-Up or Delete Files.

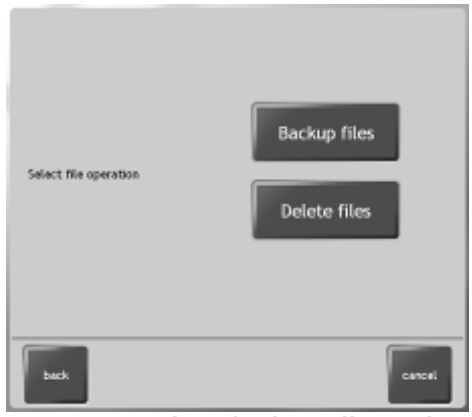


Figure 81a – Back-Up/Delete Files Selection

3. To 'Delete files', skip to step 11. If 'Backup files' is chosen, you will see the following selection choices.

Figure 81b

4. No matter which button is tapped, two buttons will appear, "All files" or One by One".

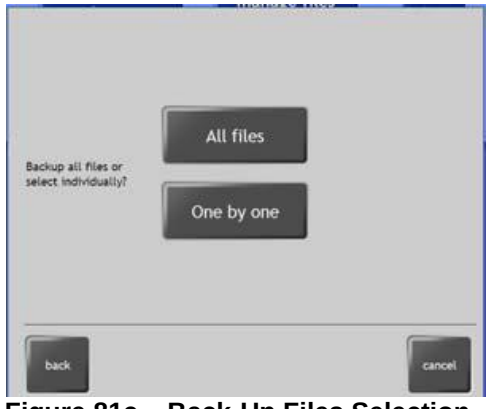


Figure 81c – Back-Up Files Selection

5. No matter which button is tapped you will be prompted to insert a USB thumb drive.

Figure 81d

6. For Multi-Partition drives the following selection will be displayed. Choose the appropriate storage partition and then tap OK.

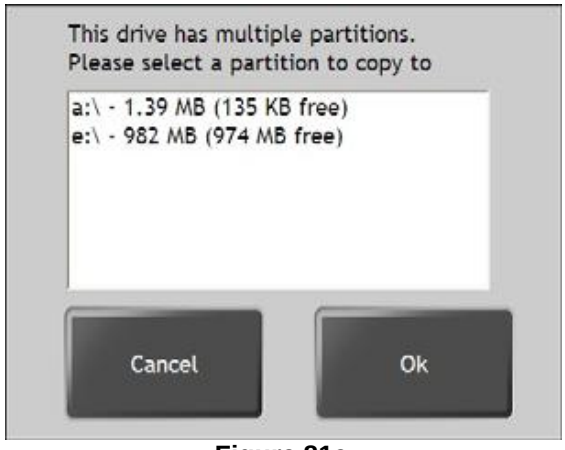


Figure 81e

7. If the storage drive has a partition that is not accessible the message shown below will be displayed.

Figure 81f

8. Encrypted drives usually have an active partition that contains the password entry application. Below is an example of this type of application. It is called DTVP_Launcher.exe.

WARNING: CellDEK is about to run the following executable from the flash device:
DTVP_Launcher.exe
Only continue if this is from a trusted source
Cancel
Continue

Figure 81g

Warning: Please ensure that the above named executable application is from a trusted source. By selecting continue the operator accepts full responsibility for running the named executable and its action.

9. The drives encryption software will then be run and a keyboard will appear automatically for password entry.

Figure 81h

NOTE: The encryption software on your Thumb drive may appear different to the example shown above.

The following makes of encrypted drives have been tested:

- Hypertec
- Transcend
- Kingston

10. Tap OK on the dialog screen shown in to continue to the file selection screen. Files can then be selected, Moved or Copied to the thumb drive as normal.

Figure 82

11. If the Erase software is loaded on the CellDEK, the data will be completely erased from the unit's hard drive when 'Delete files' is chosen.

    NOTE: For more details about Erase, please refer to the "Security Erase" section later in this chapter.

12. If the "All files" button is tapped, all of the stored data from capture sessions can be moved or copied to a USB storage device or deleted. The activity log will show files copied.

13. If the "One by One" button is tapped, a list of all previous capture sessions will appear. The list looks similar to Figure 83 below:

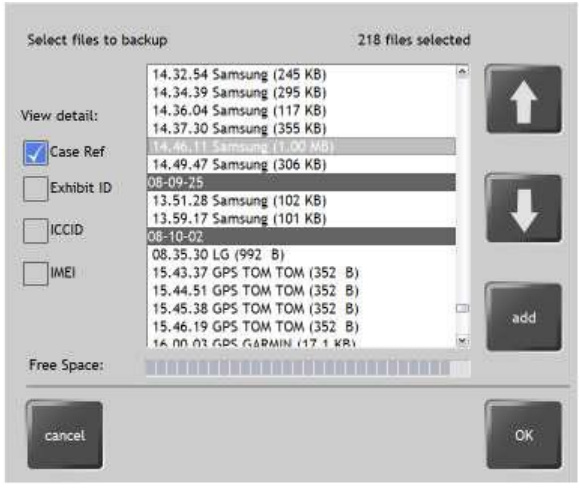


Figure 83 – Previous Extraction List

NOTE: The "Free Space" bar underneath the file list shows the amount of free space available on the USB Flash Drive where the files are to be backed up.

14. Whether the user is downloading all files or one at a time, CellDEK will ask to move or copy the selected files.

Figure 84a – Move or Copy Files

15. If “Move” is pressed, every selected file will be moved to the USB storage device. The file will then disappear from the list. Repeat this step for every file that needs to be copied.
16. If the Erase software is loaded on the CellDEK, the data will be completely erased from the unit’s hard drive as it is moved to the USB device.

NOTE: For more details about Erase, please refer to the “Security Erase” section later in this chapter.

NOTE: Keeping many previous extractions on the CellDEK will cause a delay during the boot process. It is recommended to back up old extractions from time to time.

Extraction File Backup to CD

To be able to backup extracted report files to a writeable CD, a writeable CD drive is required.

Connect the writeable CD drive to the CellDEK through the USB port before selecting the manage files option.

Select manage files and choose Backup files then Copy files and One by one. To ensure data is not lost during the burning process CellDEK will not allow files to be moved onto a CD drive. If move is selected then a message is displayed and the copy option is selected as the default.

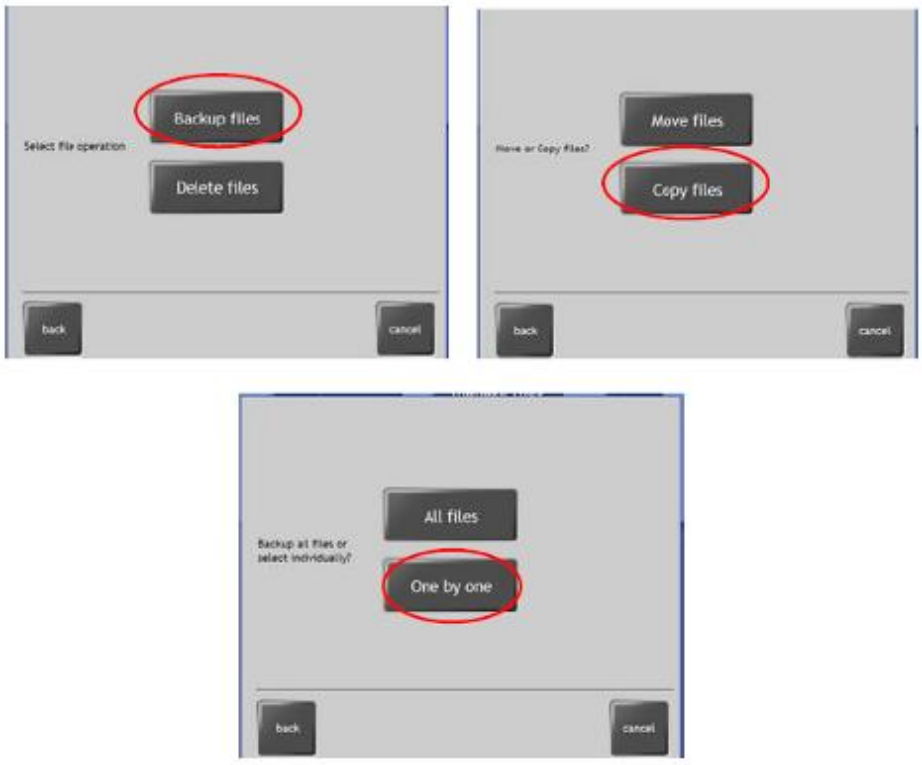


Figure 84b – Move or Copy Files

A message box will appear requesting the user to select either burning files to the CD or a removable USB pen drive.

Figure 84c – Burn Files to CD

You will then be prompted to select the files to copy. The free space indicator will show available disk space. Once all required files are selected, tap ok, the requested files are then queued for writing to the CD.

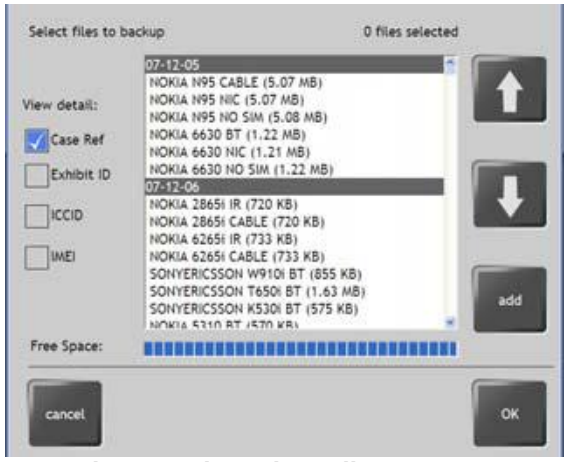


Figure 84d – Select Files to Burn

A dialog then appears allowing you to name the disk then tap next.

CD Writing Wizard
Welcome to the CD Writing Wizard
This wizard helps you write, or record, your files to a CD recording drive.
Type the name you want to give to this CD, or just click Next to use the name below.
CD name:
Jan 16 2009
New files being written to the CD will replace any files already on the CD if they have the same name.
Close the wizard after the files have been written
< Back
Next >
Cancel

Figure 84e – Name the Disk

If no disk is inserted in the drive a dialog will appear telling you to insert a disk into the writable CD drive. The burn process will then start. When the files have been copied the following dialog will appear.

CD Writing Wizard
Completing the CD Writing Wizard
You have successfully written your files to the CD.
Do you want to create another CD using the same files?
Yes, write these files to another CD
CD software developed under license from Roxio, Inc.
To close this wizard, click Finish.
< Back
Finish
Cancel

Figure 84f – Copy of Files Complete

Tap Finish to complete the process.

Upgrade Software

As new cell phones, PDA's and other devices are developed, the CellDEK application software will need to be updated from time to time.

1. Insert the USB storage device into the USB port of CellDEK
2. From the Main Application Screen, tap the "Upgrade Software" button.
3. The software update files will automatically download from the USB storage device and install themselves on CellDEK .
4. Once the new software is loaded, shut down CellDEK and restart it again.

Errors During Software Update

The CellDEK will display a warning if the software update process has failed. The most common problem is incorrectly mapped drive letters. This problem can be fixed by remapping the drive letters:

1. Tap the System Setup button, and then tap the Advanced button.
2. When prompted, enter "99999" for the PIN number.
3. The Advanced Settings Window appears. Use the Keyboard button to manually enter drive letters, or tap the Map Drives button to have CellDEK map them automatically.

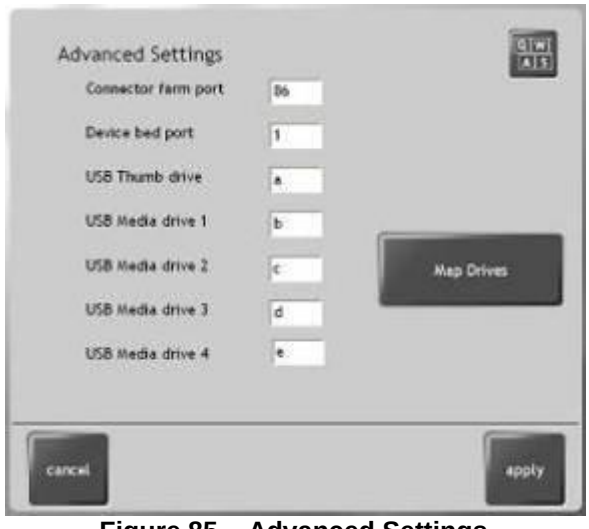


Figure 85 – Advanced Settings

NOTE: Drive letters should only be altered if CellDEK fails to update or backup operations cannot be performed. Contact Logicube Technical Support if assistance is required with this process.

iTunes Information and Updates

Your CellDEK came shipped with the supported version of iTunes for the version of CellDEK software loaded. Do not install versions of iTunes that are not supported by the CellDEK software release. The CellDEK software release notes will mention which version of iTunes must be installed, if a newer version is required. If it is necessary to update iTunes, follow these instructions:

IMPORTANT NOTES:

- Before proceeding with updating iTunes, please make sure that the AC adapter is connected to the CellDEK.
- Please follow the directions below completely. In order for CellDEK to work properly with iTunes, there are screens during the installation that require certain options set differently from the default options.

1. Download the supported release of iTunes (this may not be the current release from Apple). If a new version of iTunes is required, the supported version of iTunes will be mentioned in the software release notes.
2. Rename the file to: ***Update.exe*** and copy the files to a USB thumb drive. The files must be in a folder called “CellDEK Update” (case sensitive, without the quotes) on the root of the USB thumb drive.
3. From the CellDEK Main Application Screen, tap the ***Upgrade Software*** button.
4. You will be prompted to insert the upgrade key. Attach the USB thumb drive to the USB port of the CellDEK. Wait a few moments to make sure the USB thumb drive loads properly then tap the ***OK*** button.
5. The file will automatically download from the USB thumb drive and the CellDEK will restart.
6. After the restart, the iTunes setup will begin. The iTunes setup is a manual process in which you will have to perform certain tasks such as tapping the “Next” or “OK” buttons.

7. You may see the following message below. If you do, tap ***Yes***.

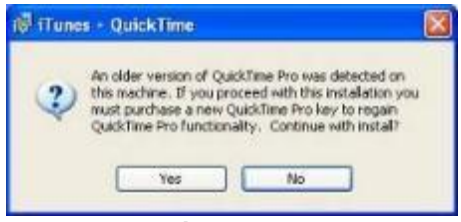

iTunes - QuickTime
An older version of QuickTime Pro was detected on this machine. If you proceed with this installation you must purchase a new QuickTime Pro key to regain QuickTime Pro functionality. Continue with install?
Yes
No

Figure 86a

8. Tap ***NEXT*** on the first screen of the installation wizard.

iTunes
Welcome to iTunes
iTunes makes it easy to enjoy your favorite music, movies, TV shows and more on your PC, iPhone, iPad, or iPod.
iTunes includes the iTunes Store, a place you can download everything you need to be entertained, day or night.
iTunes now stores your purchases in iCloud and makes them available on your devices anywhere, any time, at no additional cost.
iTunes now also includes iTunes Match. Store your entire music library in iCloud so you can enjoy your collection anywhere, anytime, on your iPhone, iPad, iPod touch, computer, or Apple TV.
To get started installing iTunes, click Next.
10.5.2.11
< Back
Next >
Cancel

Figure 86b

9. The next screen may or may not appear. If it does, tap ***I accept the terms…***, then ***NEXT.***

iTunes - QuickTime
License Agreement
Please read the following license agreement carefully.
ENGLISH
APPLE INC.
SOFTWARE LICENSE AGREEMENT FOR ITUNES
PLEASE READ THIS SOFTWARE LICENSE AGREEMENT ("LICENSE") CAREFULLY BEFORE USING THE APPLE SOFTWARE. BY USING THE APPLE SOFTWARE, YOU ARE AGREEING TO BE BOUND BY THE TERMS OF THIS LICENSE. IF YOU DO NOT AGREE TO THE TERMS OF THIS LICENSE, DO NOT USE THE SOFTWARE. IF YOU
I do not accept the terms in the license agreement
I accept the terms in the license agreement
< Back
Next >
Cancel

Figure 86c

10. On the next screen, uncheck all three of the options, then tap ***INSTALL***.

iTunes
Installation Options
Select folder where iTunes files will be installed and choose installation options.
Add iTunes shortcut to my desktop
Use iTunes as the default player for audio files
Automatically update iTunes and other Apple software
Default iTunes language: English (United States)
Destination Folder
C:\Program Files\iTunes\
Change...
< Back
Install
Cancel

Figure 86d

11. On the next screen, it will mention that ***AutoRun is turned off.*** Tap ***NO***. You ***do not*** want iTunes to turn AutoRun on.

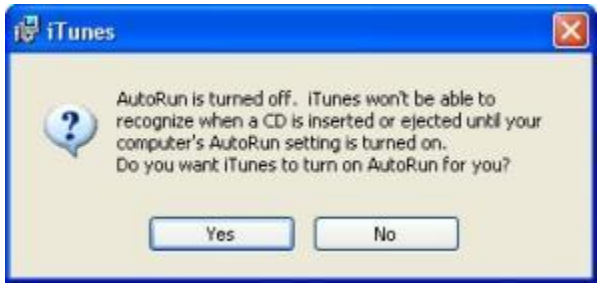

iTunes
AutoRun is turned off. iTunes won't be able to recognize when a CD is inserted or ejected until your computer's AutoRun setting is turned on.
Do you want iTunes to turn on AutoRun for you?
Yes
No

Figure 86e

12. The installation will begin. This process may take a very long time. Please do not turn off the device during this process.

iTunes
All your music. All in one place.
Import your favorite CDs with just one click. Add new favorites, day or night, from the iTunes Store. Enjoy your collection everywhere with iPod, iPhone and iPad.
Status: Installing Apple Application Support
Cancel

Figure 86f

13. On the last screen of the wizard, **uncheck** the box next to “Open iTunes after installer exits”. Tap ***FINISH***.

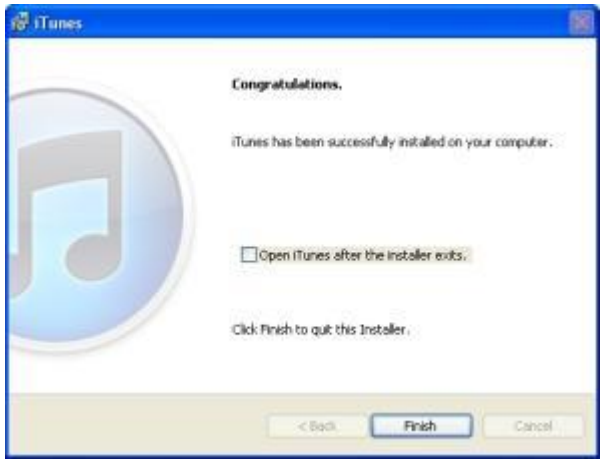


Figure 86g

14. The CellDEK will then reboot. At this point, iTunes will have been updated.

iPhone Support – User Application Notes

Introduction

The iPod touch, iPhone 2G, 3G and 3GS are supported on CellDEK. In order to extract the data from an Apple device, iTunes must be installed on the system*.

Periodically Apple release iTunes software updates that are available for download from the Apple website. Apple also release periodic iPhone software updates for the iPhone device operating system that is installed through iTunes. Newer versions of iTunes may not have been tested by Logicube yet. Please contact Logicube Technical Support to find out which version of iTunes is supported.

Note: the iPhone extraction button will only be displayed in the CellDEK software when a version of iTunes is available on the system.

IOS 5.x

Data from iPhones with iOS 5.X has been fully validated by Logicube. Please check the software version's release notes for the version of iTunes required.

Error message: Cannot find .plist

When an iPhone is connected to CellDEK or CellDEK TEK that has iTunes installed, a unique identifier file is created and stored in the local windows system folder.

This file is referred to as a .plist file and is used by the CellDEK software to communicate with the device directly.

When Apple launched support for the iPhone 3GS and iPhone OS 3.0 in iTunes version 8.2 the storage location for this .plist identifier file was changed. If a newer iTunes version was used in conjunction with CellDEK 1.14 the device would fail to connect and result in an error message on connection: 'cannot find .plist'.

The CellDEK software version 1.15 was released shortly afterwards and the new .plist storage location was included to allow the support for any device running the new iPhone software version 3.0 (including iPhone 3GS). Devices that had iPhone OS version 3.x can only be extracted on CellDEK when the iTunes version 8.2 - 9.x is installed.

Error message: Couldn't find backup files

The latest release of iTunes (at the time of this writing) is version 10.0.x. Further changes have been made by Apple, in this version, which affects the CellDEK apple device connection. When extracting an iPhone on a CellDEK or CellDEK TEK running version 1.16 (or below) in conjunction with iTunes 9.1.1 the error message 'couldn't find backup files' will be displayed shortly after connection.

Future releases from Apple

Every effort has been made to ensure that the CellDEK software is compatible with the latest iPhone version, although, it may be necessary to install future updates of the iTunes software on CellDEK to enable the support of any future iPhone OS releases.

If the user feels it absolutely necessary to install the latest version of iTunes on CellDEK and problems are encountered with the CellDEK functionality, the software should be uninstalled and the supported version can be reinstalled.

IMPORTANT NOTE: When uninstalling iTunes, the Apple Mobile Device Support driver must also be uninstalled separately.

Apple iPhone Pop-Up Window

When attaching an iPhone to the CellDEK, an Apple iPhone pop-up window may appear. The pop-up window asks you to "select the program to launch for

this action". Follow the steps below to remove this window permanently.

Fig. 86h – Apple iPhone pop-up window

Apple iPhone pop-up window removal instructions

1. Reboot the CellDEK and log on to Windows. The End User License Agreement (EULA) should appear. Do not click the OK button and do not close the window.
2. Double-tap the ***Hide Start Bar*** icon on the desktop. The Windows Start button should appear on the bottom left of the screen.
3. Tap the ***Start*** button then tap ***My Computer***. The My Computer window should appear.
4. Attach the iPhone to Cable 31 and attach Cable 31 to the CellDEK's Phone Connector socket. After a few seconds, an icon should appear under Scanners and Cameras. Tap the new icon to highlight/select it.

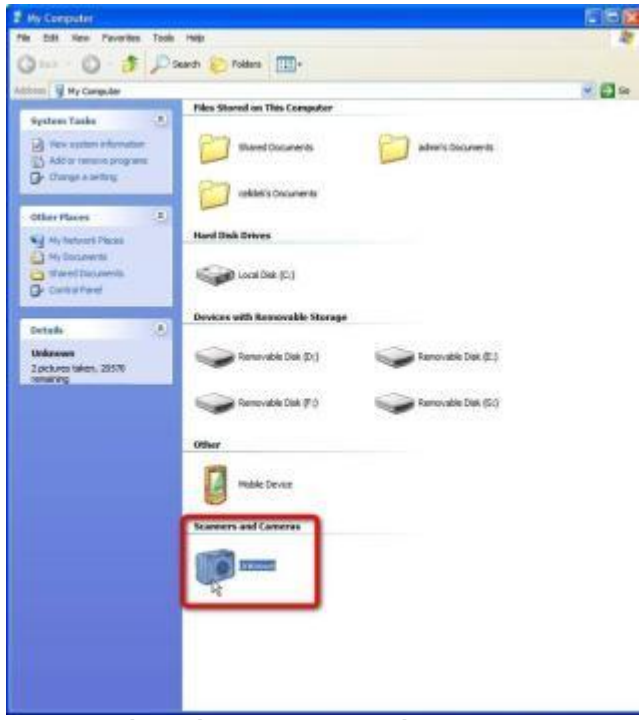


Fig. 86i – Scanners and Cameras

5. With the iPhone highlighted, tap ***File*** in the menu system, then tap ***Properties.***

Fig. 86j – Properties menu

6. The Properties window should appear. Tap the ***Events*** tab. Make sure that 'Select an event' is set to ***Camera connected*** and the "Action" is set

to ***Take no action***. Tap OK to close the window and save the changes.

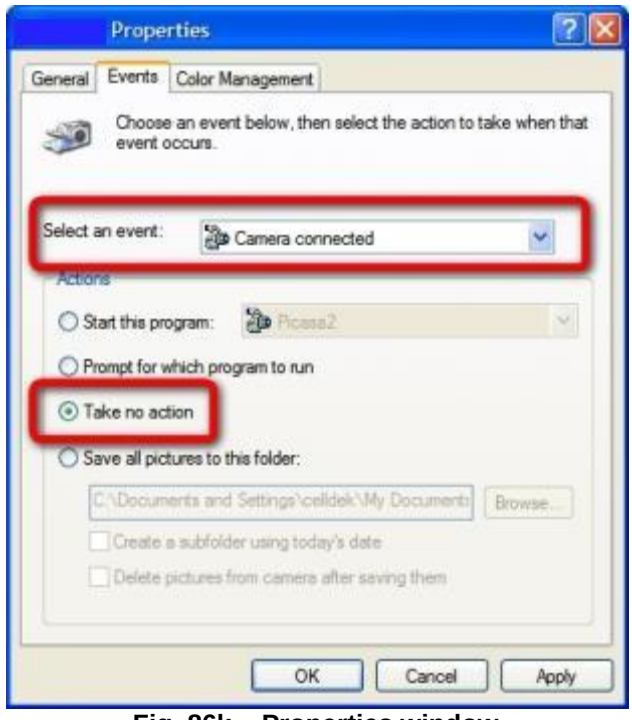


Fig. 86k – Properties window

7. Disconnect the iPhone and Cable 31 from the CellDEK. Place Cable 31 back on the CellDEK rack.
8. Accept the EULA and the CellDEK software should start.

System Setup

The System Setup brings up a Setup Menu like Figure 87 below:

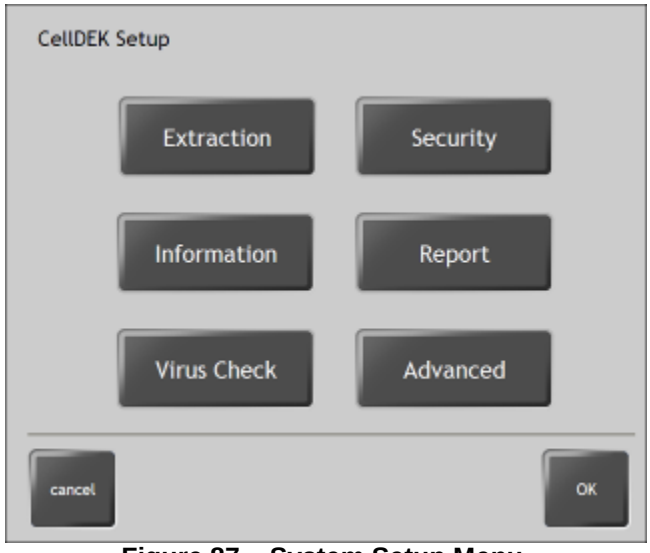


Figure 87 – System Setup Menu

Extraction Button

Tapping this button brings up the Extraction Settings screen. Checked items are represented by a blue box.

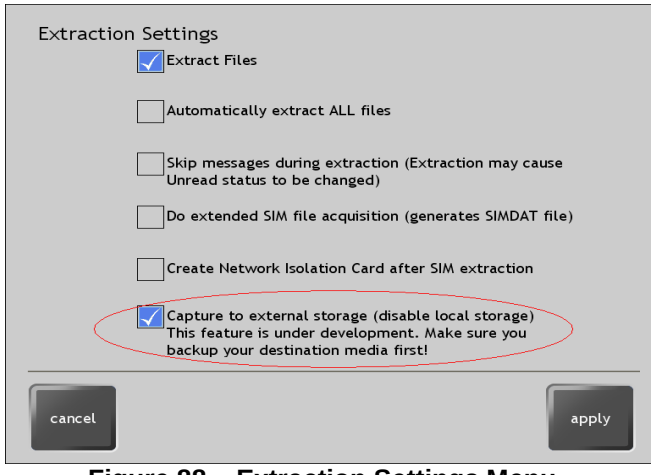

Extraction Settings
Extract Files
Automatically extract ALL files
Skip messages during extraction (Extraction may cause Unread status to be changed)
Do extended SIM file acquisition (generates SIMDAT file)
Create Network Isolation Card after SIM extraction
Capture to external storage (disable local storage) This feature is under development. Make sure you backup your destination media first!
cancel
apply

Figure 88 – Extraction Settings Menu

Extract Files – Checking this box will cause CellDEK to extract the target device's file listing.

Automatically Extract All Files – Checking this box will automatically download all Extended Data files without prompting the user. This includes all image, video, audio and other files.

Skip Messages During Extraction – Checking this box gives the option to skip unread SMS messages during extraction. During a capture session, the following prompt will appear:

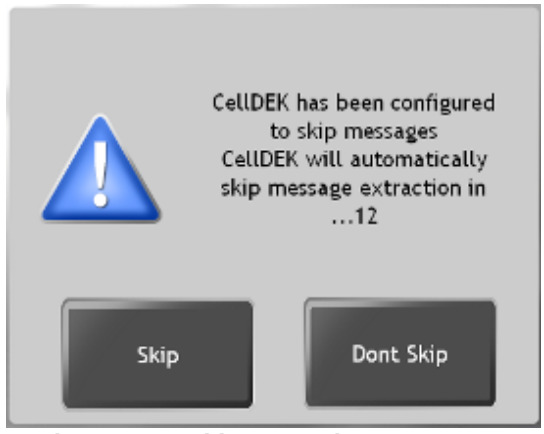


Figure 89 – Skip Unread SMS Prompt

The prompt gives the user 15 seconds to skip or download unread SMS messages. If none of the buttons are pressed, then the messages are skipped.

Do Full SIM card extraction – This feature will pull all available data off of the SIM card.

Create Network Isolation Card after SIM Capture – Checking this box will allow selective SIM data to be copied post SIM extraction to a target Network Isolation Card (NIC). The newly created NIC installed in the handset and contains enough information to appear to be the original SIM card, but it will not have the necessary information to allow the handset to connect to the network. This effectively provides Network Isolation for the phone. For additional information please refer to the supplied NIC v3.0 User Notes.

Capture to external storage – CellDEK 1.18.0.0 and newer versions support capturing data directly to a USB thumb drive. When this selection is checked and you perform a new extraction by tapping ***'Read New Device'***, you will be asked to choose where the extraction files should be stored.

Figure 90 – Drive Selection Screen

Once a drive is selected, CellDEK will continue with the extraction process as normal. CellDEK will store the extraction files in the following directory: '[DRIVE]:\CellDEK\Datafiles\'.

CellDEK is capable of detecting encrypted thumb drive software which it will execute allowing you to enter the encryption password. Once the password is entered correctly the drive will appear in the list above.

To view previous extractions which were stored directly on a USB thumb drive, enable ***'Capture to external storage'*** in Extraction Settings, and then select 'View previous extractions'. You will be asked to choose where the extraction files are stored (which drive they are on). Once you have done this, CellDEK will list the previous extractions stored on the thumb drive for you to choose from.

Information Button

Tapping this button will bring up a screen that shows Logicube Technical Support contact information.

Figure 91 –CellDEK Information Screen

It also allows the user to insert his or her company logo into the printed reports.

1. On the user's PC, rename the logo to **LOGO.jpg**. Make sure that it is less than 1MB in size.

NOTE: The logo's name is case sensitive, so it needs to be written exactly as LOGO.jpg.

2. Copy the logo to the root directory of a USB storage device.
3. In the "About CellDEK " Screen, tap the "Update Logo" button.
4. Insert the USB storage device into the USB port.
5. Tap the OK button.
6. The logo will be automatically copied to CellDEK and overwrite any existing logo.

Virus Check

A virus check option has been included within the system setup menu. The user can now run a malware removal tool to check for virus infection.

See the section "Virus Checker" in Chapter 2: Getting Started for more information.

Report Button

Tapping this button brings up the Report Settings screen. Checked items are represented by a blue box.

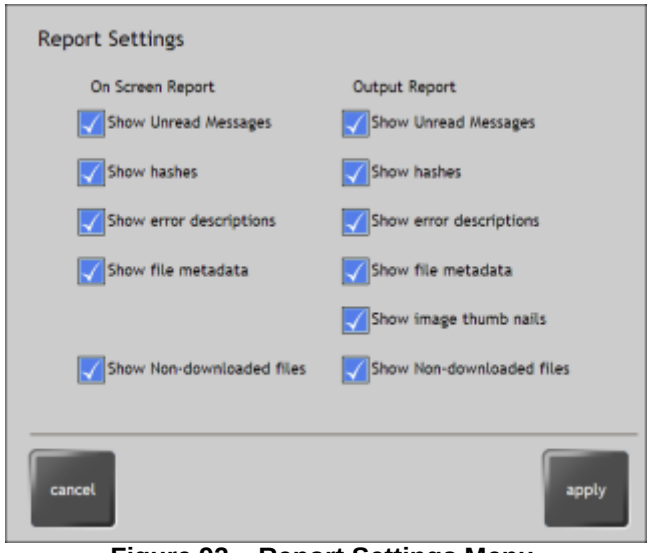


Figure 92 – Report Settings Menu

On Screen Report Settings

Show Unread Messages – Un-checking this box prevents CellDEK from showing any unread SMS messages on screen. This setting can be used for any phones that change extracted unread messages to read status.

Show Hashes – Checking this box will display the MD5 Hash Value for all extracted data files.

Show Error Descriptions – Checking this box will show detailed error descriptions for any failure to extract data. If unchecked, failure messages will read:"An error occurred during the extraction of this section of data".

Show Image Metadata – Checking this box will include metadata information with any downloaded images. Fig. 92 shows an example of this:

Figure 93 – Image Thumbnail with Metadata

NOTE: All metadata may not be retrieved from every image extraction.

Show Non-downloaded Files – Un-checking this box replaces the list of non-downloaded files on the screen with a statement that the user has chosen not to show non-downloaded data.

Output Report Settings

Show Unread Messages – Un-checking this box prevents CellDEK from showing any unread SMS messages on the report.

Show Hashes – Checking this box will display the MD5 Hash Value for all extracted data files.

Show Error Descriptions – Checking this box will show detailed error descriptions for any failure to extract data. If unchecked, failure messages will read:"An error occurred during the extraction of this section of data".

Show Image Metadata – Checking this box will include metadata information with any downloaded images on the report.

Show Image Thumb Nails – Checking this box will show thumb nail images of any downloaded image files on the report.

Show Non-downloaded Files – Un-checking this box replaces the list of non-downloaded files on the report with a statement that the user has chosen not to show non-downloaded data.

Security Button

This button is activated if the Erase program is loaded on the CellDEK. A single menu choice will appear that asks if secure erase should be used when deleting case files.

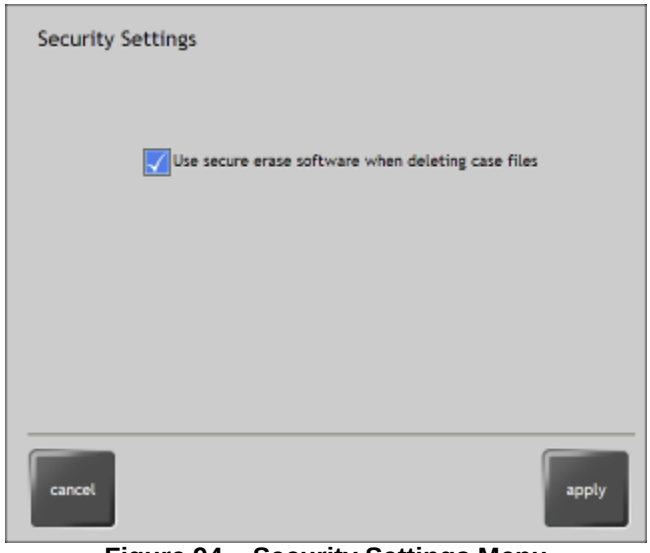


Figure 94 – Security Settings Menu

If “Use secure erase” is checked, a prompt appears asking the user to change or accept default settings.

Security Settings
Secure erase is activated. By default CellDEK has selected a single pass pseudorandom method. Click "OK" to accept this method, or "Change" to choose a different secure delete method
OK
Change
cancel
apply

Figure 95 – Secure Erase Default Prompt

If Change is tapped, another prompt appears asking the user which level of security erase should be used.

Figure 96 – Secure Erase Settings

The settings are:

Pseudo – Erase performs a single pass over the data and writes a pattern of random characters over it.

Gutmann – Erase copies an alternating random pattern 35 times over the data. This verifies that all magnetic traces of the data is gone.

US DoD 5220.22-M – Erase copies an alternating random pattern 7 times over the data. This level of erase conforms to DoD (Department of Defense) specifications.

Security Erase

CellDEK utilizes a third party utility called Eraser by Heidi Computers, Ltd. This utility is installed separately from the CellDEK software and is available as a part of software update 1.8.1.0.

CellDEK automatically detects Erase when it is installed on the unit and activated in the Security Settings Menu.

Advanced Settings Button

This button is covered earlier in this chapter under “Errors During Software Update”.

Auxiliary Power Port

CellDEK has an extra 12VDC power port that is located next to the IR Emitter on the control panel. This port can be used to power such devices as a light source or external jammer.

From the Main Application Screen, tap the “Aux Power” button to turn the port on or off. The button will display the on/off status.

CellDEK

Shutting Down CellDEK

The system can be shut down directly from the Main Application Screen. Tap the “Shut Down” button and confirm the action. CellDEK will automatically power itself down.

Figure 97 – Shutdown Screen

Standby Mode

Additionally, closing the lid of CellDEK while it is powered will send the embedded PC into Standby Mode. When the lid is opened again, the embedded PC will come back up out of standby mode.

NOTE: Once the lid is closed, DO NOT re-open the lid until CellDEK emits “USB Logoff” tones. Otherwise, CellDEK will “hang”. If this happens, shut down the unit and wait 30 – 60 seconds before powering it back up.

6. Glossary and Troubleshooting Guide

Supported Manufacturers

CellDEK is able to directly support many different wireless devices. Many of these major brands are supported now or will be in the near future:

Nokia

Motorola

Sony Ericsson

Samsung

Siemens

Audiovox

Kyocera

Palm

LG

Sanyo

Blackberry

Windows

Apple iPhone

HP iPAQ Satellite Navigation Device

TomTom Satellite Navigation Devices

Garmin Satellite Navigation Devices

Glossary

SIM (Subscriber Identity Module) - Essentially a small computer on a card that sits within the mobile phone and controls various functions of call making. It also has enough memory to hold information such as ADN and SMS.

ADN (Abbreviated Dialing Numbers) - more commonly known as the phonebook or contacts.

SMS (Short Message Service) – SMS is a form of textual conversation permitted by a network carrier. The service allows a user to send and receive textual messages direct to their handsets.

The storage capacity depends on the handset and SIM. The date and time of received messages is generated by the network, all other date and time stamps are generated from the handset time. The maximum character length is 160 per SMS. Some handsets allow longer messages to be compiled and therefore are split into relevant parts when sent, these messages are known as concatenated.

Deleted SMS (Short Message Service) - These are text messages that have been deleted from the SIM card by the cellphone user. However, most mobile phones do not remove the message, but mark the message to be overwritten by incoming messages from the network.

MMS (Multimedia Messaging Service) – A service which allows Multimedia messages to be sent from one mobile to another via one or more call centres or network providers. A Multimedia message is stored on the handset and can contain a combination of text, video clips, images and sound clips.

ICCID (Integrated Circuit Card Identifier) - The serial number of the SIM card stored electronically within the SIM. A similar number or shortened version is often found printed on the SIM card.

IMEI (International Mobile Equipment Identifier) - This is a unique number given to each handset. This is usually printed somewhere on the handset, (typically in the battery compartment) and stored electronically in the phone handset memory. It can be viewed typing *#06# on the keypad.

PIN (Personal Identification Number) - The SIM card has been locked against unauthorized access using the PIN number. When PIN security is activated, the correct PIN number must be entered in order to use any of the features of the handset (make calls, access ADN etc.) The only calls that can be made without a PIN are calls to the emergency services.

PUK (Personnel Unblocking Key) - If the PIN is unknown the PUK is used to unblock the SIM card and enable a new PIN code to be entered.

MSISDN (Mobile Station ISDN Number) - This number is the standard international number used to identify a given subscriber. However, the number stored in the MSISDN location on a SIM Card can be changed without affecting the actual telephone number. Therefore, the MSISDN number downloaded from the SIM card can only be used as an indicator.

IMSI (International Mobile Subscriber Identity) – This is a unique number allocated to each mobile phone subscriber, stored electronically within the SIM Card. It is used by the network to look up the telephone number associated to the SIM Card.

GSM (Global System for Mobile Communications) - a digital mobile telephone system that is widely used in Europe and other parts of the world. GSM uses a variation of time division multiple access (TDMA) and is the most widely used of the three digital wireless telephone technologies (TDMA, GSM, and CDMA).

CDMA (Code Division Multiple Access) - refers to any of several protocols used in so-called second-generation (2G) and third-generation (3G) wireless communications. As the term implies, CDMA is a form of multiplexing, which allows numerous signals to occupy a single transmission channel, optimizing the use of available bandwidth. The technology is used in ultra-high-frequency (UHF) cellular telephone systems in the 800-MHz and 1.9-GHz bands.

TDMA (Time Division Multiple Access) - is a technology used in digital cellular telephone communication that divides each cellular channel into three time slots in order to increase the amount of data that can be carried.

Cluster The smallest block of memory in a drive that can be written to individually by the file system.

Allocation table Table that keeps track of the contents of each cluster on the drive. The allocation table is used to combine clusters in the correct order to construct the files in the file system.

Allocated space Any cluster that is being used to store a file and has a written entry in the allocation table

Unallocated Space Any clusters that have an empty entry in the allocation table (i.e. are not assigned to any file) and are marked as being available for over writing by the file system.

Extant File A files that is still active in the file system and has appropriate entries in the allocation table to be reconstructed.

Contiguous File A file stored using clusters that are located next to each other in the drive's memory.

Troubleshooting Guide

CellDEK fails to power up/ no lights on connector rack on power up.	The CellDEK battery may be flat. Try connecting the charger. **NOTE:** the embedded PC may still have power when the internal battery does not. No light on the connectors indicates a flat internal battery. The lights should illuminate when the charger is inserted.
Dimensions entered do not display correct phone	Re-measure and re-enter dimensions by adjusting them slightly. **NOTE:** The phone may not yet be included in the identification module
Cell phone not listed or no image can be found.	Phone may not yet be supported by the identification module. Select a similar device from the listing and use IR or Bluetooth ONLY. Damage to the handset can occur by selecting the wrong cable for a device and is not recommended. **NOTE:** The device make and model reported is obtained from the phone not based on the device selected from the identification module.
Infrared discovery failed	Ensure infrared is active on target device and IR window is aligned with the CellDEK's pickup sensor.
Bluetooth extraction failed	Ensure Bluetooth is active on target device and device is in discoverable mode. Also, device may be asking for a 4-digit code number or file acceptance on screen during the extraction.
Connector not lit	Ensure cable is replaced correctly and retry then reboot the CellDEK if problem persists.
No cable connection method offered	Ensure all connectors are correctly inserted into the storage rack and reboot the CellDEK.
No battery monitor onscreen	Connection to hardware com port suspect - reboot CellDEK. **NOTE:** Connector lights should go out as the CellDEK software opens thus indicating hardware

	com port success.
CellDEK application freezes continuously	Hold power switch in the 'on' position for a few seconds until shutdown. Wait for unit to emit "beeps" before releasing switch.
SIM card read fail	Ensure SIM is correctly inserted and in the correct orientation.
'SIM PIN required' message	Enter PIN code. If entered incorrectly 3 times PUK will be required.
'SIM PUK required' message	Contact carrier/provider to obtain PUK code.
CellDEK fails to read memory card	Ensure card is inserted correctly. Reboot CellDEK.
SIM Card LED goes out	If problems persist, hold power switch in the 'on' position for a few seconds until shutdown. Wait for unit to emit "beeps" before releasing switch.
CellDEK unit freezes or crashes	Hold power switch in the 'on' position for a few seconds until shutdown. Wait for unit to emit "beeps" before releasing switch.

Error Messages

If an error message occurs during CellDEK use, a small "Help" icon appears in the corner of the error.

Figure 97 – Help Icon Location

Tap the Help Icon to bring up a description of the error message and possible solutions.

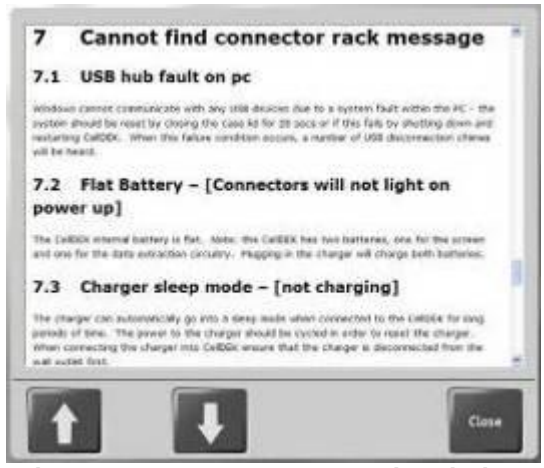

7 Cannot find connector rack message
7.1 USB hub fault on pc
7.2 Flat Battery – [Connectors will not light on power up]
7.3 Charger sleep mode – [not charging]
Close

Figure 98 – Error Message Help Window

7. Supported Handsets

Handsets tested on CellDEK and the results verified

These handsets are assigned a green tick next to their image on CellDEK.

The following handsets have been tested on CellDEK using the standard validation procedures of Logicube. The results below display the data sets that can be extracted from CellDEK for the specific handset. There may be additional data sets available from handsets and these will require further examination.

Key:

Phone ID		SMS	
Phone ID w timestamp		SMS w timestamp	
Contacts		MMS	**MMS**
Call Logs		Files	
Call Logs w timestamp		Organizer	

- Handsets that appear with no cable number assigned are supported via Infrared or Bluetooth methods.
- Cable Number 999 refers to the external Nokia CA-42 cable

No.	Manufacturer	Model	Phone ID	Contacts	Call Logs	Messages	Files	Organiser	Mobile Standard	Cable No.	Date Added
1	ACER	beTouch E101	☎🕘	🕮	🕘	✉🕘	🗁	▯	GSM	9	Jan-10
2	ACER	F900	☎🕘	🕮	🕘	✉🕘	🗁	▯	GSM	9	Jan-10
3	ACER	n50	☎🕘	🕮	□	□	🗁	▯	GSM		Jul-06
4	ACER	X960	☎🕘	🕮	🕘	✉🕘	🗁	▯	GSM	9	Oct-09
5	ALCATEL	OT-C707	☎🕘	🕮	🕘	✉🕘	🗁	□	GSM		Apr-08
6	AMOI	WP-S1	☎	🕮	□	✉ 🕘	🗁	▯	GSM	9	Apr-09

7	ANDROID	G1	☎	🕮	◑ 🕘	✉ 🕘	🗁	🗎	GSM	9	Jul-08
8	APPLE	iPhone	☎	🕮	◑ 🕘	✉ 🕘	🗁	🗎	GSM	31	Oct-08
9	APPLE	iPhone 3G	☎	🕮	◑ 🕘	✉ 🕘	🗁	🗎	GSM	31	Oct-09
10	APPLE	iPhone 4	☎	🕮	◑ 🕘	✉ 🕘	🗁	🗎	GSM	31	May-11
11	BENQ	E72	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	🗎	GSM	9	Jan-09
12	BENQ	P50	☎ 🕘	🕮	◑ 🕘	✉	🗁	🗎	GSM	9	Jul-06
13	BENQ SIEMENS	EF81	☎ 🕘		◑	✉ 🕘			GSM		Apr-07
14	BENQ SIEMENS	S68	☎ 🕘	🕮	◑	✉	🗁	🗎	GSM		Jul-06
15	BENQ SIEMENS	S88	☎	🕮	◑	✉ 🕘			GSM		Jul-07
16	BLACKBERRY	7230		🕮	◑ 🕘	✉ 🕘		🗎	GSM	9	Apr-08
17	BLACKBERRY	7250		🕮	◑ 🕘	✉ 🕘		🗎	GSM	9	Jul-07
18	BLACKBERRY	7290		🕮	◑ 🕘	✉ 🕘	🗁	🗎	GSM	9	Jan-07
19	BLACKBERRY	8100	☎	🕮	◑ 🕘	✉ 🕘		🗎	GSM	9	Jul-07
20	BLACKBERRY	8120	☎	🕮	◑ 🕘	✉ 🕘	🗁	🗎	GSM	9	Jan-09
21	BLACKBERRY	8300	☎	🕮	◑ 🕘	✉ 🕘	🗁	🗎	GSM	9	Jan-09
22	BLACKBERRY	8310		🕮	◑ 🕘	✉ 🕘	🗁	🗎	GSM	9	Jul-08
23	BLACKBERRY	8320		🕮	◑ 🕘	✉ 🕘	🗁	🗎	GSM	9	Apr-08
24	BLACKBERRY	8330	☎	🕮	◑ 🕘	✉ 🕘	🗁	🗎	CDMA	9	Jan-09
25	BLACKBERRY	8520	☎	🕮	◑ 🕘	✉ 🕘	🗁	🗎	GSM	26	Jan-10
26	BLACKBERRY	8800	☎	🕮	◑ 🕘	✉ 🕘		🗎	GSM	9	Jan-10
27	BLACKBERRY	8800	☎	🕮	◑ 🕘	✉ 🕘	🗁	🗎	GSM	9	Oct-08
28	BLACKBERRY	8820		🕮	◑ 🕘	✉ 🕘	🗁	🗎	GSM	9	Apr-08
29	BLACKBERRY	8830	☎	🕮	◑ 🕘	✉ 🕘		🗎	CDMA	9	Oct-08
30	BLACKBERRY	8900	☎	🕮	◑ 🕘	✉ 🕘	🗁	🗎	GSM	26	Jul-09
31	BLACKBERRY	9000	☎	🕮	◑ 🕘	✉ 🕘	🗁	🗎	GSM	9	Jan-09
32	BLACKBERRY	9500	☎	🕮	◑ 🕘	✉ 🕘	🗁	🗎	GSM	26	Jul-09
33	BLACKBERRY	9530	☎	🕮	◑ 🕘	✉ 🕘	🗁	🗎	GSM	26	Jul-09
34	BLACKBERRY	9700	☎	🕮	◑ 🕘	✉ 🕘		🗎	GSM	26	Sep-10
35	BLACKBERRY	7100t		🕮	◑ 🕘		🗁	🗎	GSM	9	Apr-06
36	BLACKBERRY	7100v		🕮	◑ 🕘	✉ 🕘		🗎	GSM	9	Apr-06
37	BLACKBERRY	7100x		🕮	◑	✉		🗎	GSM	9	Apr-06

38	BLACKBERRY	8700f							GSM	9	Jan-07
39	BLACKBERRY	8700g							GSM	9	Jan-07
40	BLACKBERRY	8700v							GSM	9	Oct-07
41	BLACKBERRY	8707g							GSM	9	Oct-09
42	BLACKBERRY	8707v							GSM	9	Jul-07
43	BLACKBERRY	9780							GSM	26	Dec-11
44	BLACKBERRY	9800							GSM	26	Dec-11
45	BLACKBERRY	9650							GSM	26	Dec-11
46	DELL	AXIM X51v							GSM		Oct-06
47	E-TEN	P300B							GSM		Oct-07
48	GLOFIISH	M810							GSM	9	Oct-09
49	GLOFIISH	X600							GSM	9	Oct-08
50	HP	iPAQ 514							GSM	9	Oct-07
51	HP	iPAQ H5550							GSM		Jul-06
52	HP	iPAQ HW6915							GSM		Oct-06
53	HP	iPAQ rx1950							GSM		Jul-07
54	HP	iPAQ rz1710							GSM		Jul-06
55	HTC	Desire							GSM	26	May-11
56	HTC	EVO 4G							CDMA	26	May-11
57	HTC	Hero							GSM	9	Oct-09
58	HTC	Incredible							CDMA	26	May-11
59	HTC	Kaizer							GSM	9	Jan-08
60	HTC	Magic							GSM	9	Oct-09
61	HTC	NEXUS ONE							GSM	26	Dec-10
62	HTC	P3300							GSM	9	Oct-07
63	HTC	P3450							GSM	9	Jul-09
64	HTC	P3470							GSM	9	Oct-08
65	HTC	P5500							GSM	9	Oct-08
66	HTC	S310							GSM	9	Jul-07
67	HTC	S620							GSM	9	Oct-08

68	HTC	S710	☎	🕮	◑	✉	🗁	▯	GSM	9	Jul-08
69	HTC	S740	☎	🕮	◑	✉	🗁	▯	GSM	9	Jul-09
70	HTC	S743	☎	🕮	◑	✉	🗁	▯	GSM	18	Dec-10
71	HTC	Shadow	☎	🕮	◑	✉	🗁	▯	GSM	9	Oct-08
72	HTC	SMT5800	☎	🕮	◑	✉	🗁	▯	CDMA	9	Sep-10
73	HTC	Snap	☎	🕮	◑	✉	🗁	▯	GSM	9	Oct-09
74	HTC	Tattoo	▯	🕮	◑	✉	🗁	▯	GSM	9	Jan-10
75	HTC	Tornado	▯	🕮	◑	✉	🗁	▯	GSM	9	Jan-08
76	HTC	Touch	▯	🕮	◑	✉	🗁	▯	GSM	9	Oct-07
77	HTC	TOUCH CRUISE	☎	🕮	◑	✉	🗁	▯	GSM	9	Apr-09
78	HTC	TOUCH DIMOND	☎	🕮	◑	✉	🗁	▯	GSM	9	Jul-09
79	HTC	Inspire	☐	🕮	◑	✉	🗁	▯	GSM	26	Dec 2011
80	HTC	ThunderBolt	☎	🕮	◑	✉	🗁	▯	CDMA	26	Dec 2011
81	**HTC**	**Sensation**	☎	🕮	◑	✉	🗁	▯	**GSM**	**26**	**Apr-12**
82	**HTC**	**Amaze 4G**	☎	🕮	◑	✉	🗁	▯	**GSM**	**26**	**Apr-12**
83	**HTC**	**Status**	☎	🕮	◑	✉	🗁	▯	**GSM**	**26**	**Apr-12**
84	HUAWEI	U8150	☎	🕮	◑	✉	🗁	▯	GSM	26	Dec 2011
85	HUAWEI	M735	☎	🕮	◑	✉	▯	▯	CDMA	26	Dec 2011
86	**HUAWEI**	**U8800**	☎	🕮	◑	✉	🗁	▯	**GSM**	**26**	**Apr-12**
87	IMATE	JAM	▯	🕮	◑	✉	🗁	▯	GSM	9	Jul-06
88	IMATE	JAMin	▯	🕮	◑	✉	🗁	▯	GSM	9	Jul-06
89	IMATE	JASJAR	☎	🕮	◑	✉	🗁	▯	GSM	9	Oct-06
90	IMATE	K-JAM	▯	🕮	◑	✉	🗁	▯	GSM	9	Jul-06
91	IMATE	PDA2K	☎	🕮	◑	✉	🗁	▯	GSM		Jul-08
92	IMATE	SP3i	☎	🕮	◑	✉	🗁	▯	GSM	9	Jul-06
93	IMATE	SP5	☎	🕮	◑	✉	🗁	▯	GSM	9	Jul-06
94	IMATE	SPL	☎	🕮	◑	✉	🗁	▯	GSM	9	Jul-07
95	KYOCERA	K323	☎	🕮	▯	✉	🗁	▯	CDMA		Jan-09
96	KYOCERA	K342	☎	🕮	▯	✉	🗁	▯	CDMA		Jan-09
97	KYOCERA	K404	☎	🕮	◑	✉	▯	▯	CDMA	3	Jul-06
98	KYOCERA	K9	☎	🕮	▯	✉	🗁	▯	CDMA	3	Jan-09

99	KYOCERA	KX1	☎	🕮		✉	🗁		CDMA	3	Jan-09
100	KYOCERA	KX160	☎	🕮		✉	🗁		CDMA	3	Jan-09
101	KYOCERA	KX5	☎	🕮		✉	🗁		CDMA		Jan-09
102	KYOCERA	KX9a	☎	🕮		✉	🗁		CDMA	3	Jan-09
103	KYOCERA	S1300	☎	🕮		✉	🗁	▤	CDMA	26	Sep-10
104	KYOCERA	S4000	☎	🕮		✉	🗁	▤	CDMA	26	Sep-10
105	KYOCERA	SE47	☎	🕮	◑ 🕘	✉			CDMA	19	Jul-06
106	KYOCERA	M1400	☎	🕮		✉ 🕘		▤	CDMA	26	Dec 2011
107	LG	A7110	☎ 🕘	🕮	◑			▤	GSM	5	Jul-06
108	LG	AX380	☎	🕮	◑ 🕘	✉ 🕘	🗁		CDMA	27	Jul-09
109	LG	C1300i	☎	🕮		✉ 🕘		▤	GSM	19	Jan-07
110	LG	C1500	☎	🕮		✉ 🕘		▤	GSM	19	Jan-07
111	LG	C2000	☎	🕮		✉ 🕘		▤	GSM	19	Jan-07
112	LG	C2500	☎ 🕘		◑ 🕘	✉ 🕘			GSM	9	Jul-10
113	LG	CE500	☎ 🕘	🕮	◑				GSM	5	Jul-06
114	LG	CG225	☎	🕮		✉ 🕘		▤	GSM	19	Jan-07
115	LG	CG300	☎	🕮		✉ 🕘		▤	GSM	19	Jan-07
116	LG	F2500	☎ 🕘	🕮		✉ 🕘	🗁	▤	GSM		Apr-08
117	LG	F9100	☎	🕮		✉ 🕘		▤	GSM	19	Jan-07
118	LG	F9200	☎	🕮		✉ 🕘		▤	GSM	19	Jan-07
119	LG	G4020	☎	🕮		✉ 🕘		▤	GSM	19	Apr-08
120	LG	G4050	☎	🕮		✉ 🕘		▤	GSM	19	Jan-07
121	LG	GD900	☎	🕮		✉ 🕘	🗁	▤	GSM	26	Jan-10
122	LG	GS170	☎ 🕘	🕮		✉ 🕘			GSM	26	Dec-10
123	LG	GT365	☎ 🕘	🕮		✉ 🕘		▤	GSM	27	Sep-10
124	LG	GT950 (Arena)	☎ 🕘			✉ 🕘	🗁		GSM	26	May-11
125	LG	GW300	☎	🕮		✉ 🕘	🗁	▤	GSM	26	Jan-10
126	LG	GW520	☎	🕮		✉ 🕘	🗁	▤	GSM	26	Jan-10
127	LG	GW820 (Expo)	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	▤	GSM	26	May-11
128	LG	KC550	☎ 🕘	🕮		✉ 🕘	🗁	▤	GSM	27	Oct-08
129	LG	KC780	☎ 🕘	🕮		✉ 🕘	🗁	▤	GSM	27	Oct-09
130	LG	KC910	☎	🕮		✉ 🕘	🗁	▤	GSM	27	Apr-09

131	LG	KE500	☎	🕮	▯	✉ 🕘	🗁	🗏	GSM	27	Oct-08
132	LG	KE770	☎ 🕘	🕮	▯	✉ 🕘	🗁	🗏	GSM	27	Apr-08
133	LG	KE800	☎ 🕘	🕮	▯	✉ 🕘	🗁	🗏	GSM	27	Apr-08
134	LG	KE820	☎ 🕘	🕮	▯	✉ 🕘	🗁	🗏	GSM	27	Apr-08
135	LG	KE850	☎ 🕘	🕮	▯	✉ 🕘	🗁	🗏	GSM	27	Apr-08
136	LG	KE970	☎ 🕘	🕮	▯	✉ 🕘	🗁	🗏	GSM	27	Apr-08
137	LG	KF510	☎ 🕘	🕮	▯	✉ 🕘	🗁	🗏	GSM	27	Jan-09
138	LG	KF600	☎ 🕘	🕮	▯	✉ 🕘	🗁	🗏	GSM	27	Jan-09
139	LG	KG200	☎ 🕘	▯	◑ 🕘	✉ 🕘	🗁	▯	GSM	9	Sep-10
140	LG	KG300	☎ 🕘	▯	◑ 🕘	✉ 🕘	🗁	▯	GSM	9	Sep-10
141	LG	KG320	☎ 🕘	🕮	▯	✉ 🕘	🗁	🗏	GSM	27	Jul-07
142	LG	KG800	☎ 🕘	🕮	▯	✉ 🕘	🗁	🗏	GSM	27	Oct-06
143	LG	KG810	☎	🕮	▯	✉ 🕘	▯	🗏	GSM	27	Apr-08
144	LG	KG920	☎ 🕘	🕮	▯	✉ 🕘	🗁	🗏	GSM	5	Oct-06
145	LG	KM710	☎	🕮	▯	✉ 🕘	▯	🗏	GSM	27	Oct-08
146	LG	KM900	☎	🕮	▯	✉ 🕘	🗁	🗏	GSM		Jan-10
147	LG	KP170	☎ 🕘	🕮	▯	✉ 🕘	🗁	🗏	GSM	27	Jan-10
148	LG	KP500	☎	🕮	▯	✉ 🕘	🗁	🗏	GSM	27	Apr-09
149	LG	KU990	☎	🕮	▯	✉ 🕘	🗁	🗏	GSM	27	Apr-09
150	LG	L1150	☎	🕮	▯	✉ 🕘	▯	🗏	GSM	19	Apr-08
151	LG	L1200	☎	🕮	▯	✉ 🕘	▯	🗏	GSM	19	Jan-07
152	LG	L1400i	☎	🕮	▯	✉ 🕘	▯	🗏	GSM	19	Jan-07
153	LG	LG6190	☎	🕮	◑ 🕘	✉ 🕘	🗁	🗏	CDMA	6	Sep-10
154	LG	LX150	☎	🕮	◑ 🕘	✉ 🕘	▯	🗏	CDMA	27	Apr-08
155	LG	LX160	☎	🕮	◑ 🕘	✉ 🕘	▯	🗏	CDMA	27	Apr-08
156	LG	LX550	☎	🕮	◑ 🕘	✉ 🕘	🗁	🗏	CDMA	6	Apr-08
157	LG	LX5550	☎	🕮	◑ 🕘	✉ 🕘	🗁	🗏	CDMA	5	Oct-07
158	LG	MM535	☎	🕮	◑ 🕘	✉ 🕘	🗁	🗏	CDMA	6	Apr-06
159	LG	MN240 (Imprint)	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	🗏	CDMA	26	May-11
160	LG	MT310	☎	🕮	◑ 🕘	✉ 🕘	🗁	🗏	CDMA	26	Dec-10
161	LG	P7200	☎	🕮	◑	▯	🗁	🗏	GSM	5	Apr-06

162	LG	PM225	☎	🕮	◑	✉	🗁	▯	CDMA	6	Apr-06
163	LG	PM325	☎	🕮	◑	✉	🗁	▯	CDMA	6	Apr-06
164	LG	S5200	☎	🕮	◑		🗁	▯	GSM	5	Apr-06
165	LG	U8110	☎	🕮		✉		▯	GSM	5	Apr-09
166	LG	U8120	☎	🕮		✉	🗁	▯	GSM	5	Apr-09
167	LG	U8130	☎	🕮		✉		▯	GSM	5	Apr-09
168	LG	U8138	☎	🕮		✉		▯	GSM	5	Apr-09
169	LG	U8360	☎	🕮		✉	🗁	▯	GSM	5	Apr-09
170	LG	U8380	☎	🕮		✉		▯	GSM	5	Apr-09
171	LG	UN430	☎	🕮		✉	🗁		CDMA	26	Dec-10
172	LG	UX260	☎	🕮	◑	✉	🗁	▯	CDMA	27	Oct-09
173	LG	UX300	☎	🕮	◑	✉	🗁	▯	CDMA	26	Dec-10
174	LG	UX355	☎	🕮	◑	✉	🗁	▯	CDMA	6	Jul-07
175	LG	UX390	☎	🕮	◑	✉	🗁	▯	CDMA	6	Jul-07
176	LG	UX4750	☎	🕮	◑	✉	🗁	▯	CDMA	6	Jan-08
177	LG	UX5000	☎	🕮	◑	✉	🗁	▯	CDMA	6	Jan-08
178	LG	VI125	☎	🕮	◑	✉	🗁	▯	CDMA	6	Apr-06
179	LG	VX10000	☎	🕮	◑	✉	🗁	▯	CDMA	27	Jan-09
180	LG	VX4500	☎	🕮	◑	✉	🗁	▯	CDMA	19	Jul-06
181	LG	VX4600	☎	🕮	◑	✉	🗁	▯	CDMA	19	Jul-06
182	LG	VX4700	☎	🕮	◑	✉	🗁	▯	CDMA	6	Apr-06
183	LG	VX5200	☎	🕮	◑	✉	🗁	▯	CDMA	6	Apr-06
184	LG	VX5300	☎	🕮	◑	✉	🗁	▯	GSM	21	Oct-06
185	LG	VX5400	☎	🕮	◑	✉	🗁	▯	CDMA	27	Jan-09
186	LG	VX5500	☎	🕮	◑	✉	🗁	▯	CDMA	26	Sep-10
187	LG	VX5600	☎	🕮	◑	✉	🗁	▯	CDMA	26	Dec-10
188	LG	VX6000	☎	🕮	◑	✉	🗁	▯	CDMA	5	Jul-06
189	LG	VX6100	☎	🕮	◑	✉	🗁	▯	CDMA	6	Apr-06
190	LG	VX6190	☎	🕮	◑	✉	🗁	▯	CDMA	6	Sep-10
191	LG	VX7000	☎	🕮	◑	✉	🗁	▯	CDMA	6	Jul-06

192	LG	VX8000	☎	🕮	◑ 🕘	✉ 🕘	🗁	▯	CDMA	6	Jul-06
193	LG	VX8100	☎	🕮	◑ 🕘	✉ 🕘	🗁	▯	CDMA	6	Apr-06
194	LG	VX8300	☎	🕮	◑ 🕘	✉ 🕘	🗁	▯	CDMA	21	Oct-06
195	LG	VX8350	☎	🕮	◑ 🕘	✉ 🕘	🗁	▯	CDMA	27	Apr-08
196	LG	VX8500	☎	🕮	◑ 🕘	✉ 🕘	🗁	▯	CDMA	27	Oct-08
197	LG	VX8575	☎	🕮	◑ 🕘	✉ 🕘	🗁	▯	CDMA	26	Sep-10
198	LG	VX8610	☎	🕮	◑ 🕘	✉ 🕘	🗁	▯	CDMA	26	Oct-09
199	LG	VX8700	☎	🕮	◑ 🕘	✉ 🕘	🗁	▯	CDMA	27	Jan-09
200	LG	VX8800	☎	🕮	◑ 🕘	✉ 🕘	🗁	▯	CDMA	27	Jan-09
201	LG	VX9100	☎	🕮	◑ 🕘	✉ 🕘	🗁	▯	CDMA	26	Jan-09
202	LG	VX9200	☎	🕮	◑ 🕘	✉ 🕘	🗁	▯	CDMA	26	Dec-10
203	LG	VX9400	☎	🕮	◑ 🕘	✉ 🕘	🗁	▯	CDMA	27	Apr-08
204	LG	VX9700	☎	🕮	◑ 🕘	✉ 🕘	🗁	▯	CDMA	26	Dec-10
205	LG	VX9800	☎	🕮	◑ 🕘	✉ 🕘	🗁	▯	CDMA	6	Jan-07
206	LG	VX9900	☎	🕮	◑ 🕘	✉ 🕘	🗁	▯	CDMA	27	Oct-08
207	LG	P509	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	▯	GSM	26	Dec 2011
208	LG	KS20	☎ 🕘	🕮	◑ 🕘	✉	🗁	▯	GSM	27	Dec 2011
209	LG	VS750	☎ 🕘	🕮	◑ 🕘	✉	🗁	▯	CDMA	26	Dec 2011
210	LG	UX310	☎	🕮	◑ 🕘	✉ 🕘	▯	▯	CDMA	26	Dec 2011
211	LG	MT375	☎	🕮	◑ 🕘	✉ 🕘	🗁	▯	CDMA	26	Dec 2011
212	LG	VN530	☎	🕮	◑ 🕘	▯	🗁	▯	CDMA	26	Dec 2011
213	**LG**	**P505**	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	▯	**GSM**	**26**	**Apr-12**
214	**LG**	**C729**	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	▯	**GSM**	**26**	**Apr-12**
215	**LG**	**LG670**	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	▯	**CDMA**	**26**	**Apr-12**
216	**LG**	**AX145**	☎	🕮	▯	▯	▯	▯	**CDMA**	**19**	**Apr-12**
217	**LG**	**P925**	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	▯	**GSM**	**26**	**Apr-12**
218	**LG**	**P930**	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	▯	**GSM**	**26**	**Apr-12**
219	LOBSTER	700TV	▯	🕮	◑ 🕘	✉ 🕘	🗁	▯	GSM	9	Jan-08
220	MIO	A501	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	▯	GSM	9	Jul-09
221	MIO	A701	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	▯	GSM	9	Apr-07
222	MOTOROLA	MB810 (DROID	☎	🕮	◑	✉	🗁	▯	CDMA	26	May-11

		X)									
223	MOTOROLA	A555 (Devour)							CDMA	26	May-11
224	MOTOROLA	A835							GSM	24	Dec-05
225	MOTOROLA	A855							CDMA	26	Sep-10
226	MOTOROLA	C332							GSM	9	Jul-07
227	MOTOROLA	C343							CDMA	24	Apr-06
228	MOTOROLA	C350							GSM	9	Apr-06
229	MOTOROLA	C385							GSM	9	Dec-05
230	MOTOROLA	C390							GSM	9	Dec-05
231	MOTOROLA	C550							GSM	9	Dec-05
232	MOTOROLA	C650							GSM	9	Dec-05
233	MOTOROLA	C975							GSM	24	Dec-05
234	MOTOROLA	E1							GSM	24	Apr-06
235	MOTOROLA	E1000							CDMA	24	Oct-06
236	MOTOROLA	E1070							GSM	9	Jan-07
237	MOTOROLA	E398							GSM	24	Dec-05
238	MOTOROLA	E8							GSM		Jan-10
239	MOTOROLA	E815							CDMA		Oct-06
240	MOTOROLA	K1							GSM	9	Oct-07
241	MOTOROLA	K1m							CDMA		Apr-07
242	MOTOROLA	K3							GSM	9	Jul-07
243	MOTOROLA	L2							GSM	9	Oct-06
244	MOTOROLA	L6							GSM	9	Apr-06
245	MOTOROLA	L7							GSM	9	Apr-06
246	MOTOROLA	maxx Ve							CDMA		Jan-10
247	MOTOROLA	MPX200							GSM	9	Jul-06
248	MOTOROLA	MPX220							GSM	24	Jul-06
249	MOTOROLA	Q							GSM	9	Jan-08
250	MOTOROLA	Q9h							GSM	26	Apr-08
251	MOTOROLA	QA1							GSM	26	Sep-10
252	MOTOROLA	T280i							GSM		Oct-06

253	MOTOROLA	T300p	☎	🕮	◑	✉			CDMA	24	Dec-05
254	MOTOROLA	U6	☎	🕮	◑	✉	🗁		GSM	9	Apr-06
255	MOTOROLA	V1050	☎	🕮	◑	✉	🗁		GSM	24	Oct-06
256	MOTOROLA	V120c	☎	🕮	◑	✉			CDMA	24	Apr-06
257	MOTOROLA	V180	☎	🕮	◑	✉	🗁		GSM	9	Dec-05
258	MOTOROLA	V188	☎	🕮	◑	✉	🗁		GSM	9	Apr-06
259	MOTOROLA	V190	☎	🕮	◑	✉			GSM	9	Jul-07
260	MOTOROLA	V195	☎	🕮	◑	✉			GSM	9	Oct-06
261	MOTOROLA	V220	☎	🕮	◑	✉	🗁		GSM	9	Apr-06
262	MOTOROLA	V235	☎	🕮	◑	✉	🗁		GSM	9	Jan-07
263	MOTOROLA	V260	☎	🕮	◑	✉			CDMA	24	Jan-08
264	MOTOROLA	V265	☎	🕮	◑	✉			CDMA	24	Apr-08
265	MOTOROLA	V3	☎	🕮	◑	✉	🗁		GSM	9	Dec-05
266	MOTOROLA	V300	☎	🕮	◑	✉	🗁		GSM	24	Dec-05
267	MOTOROLA	V360	☎	🕮	◑	✉	🗁		GSM	9	Apr-06
268	MOTOROLA	V3a	☎	🕮	◑	✉	🗁		CDMA	9	May-11
269	MOTOROLA	V3c	☎	🕮	◑	✉	🗁		CDMA		Jan-10
270	MOTOROLA	V3i	☎	🕮	◑	✉	🗁		GSM	9	Apr-06
271	MOTOROLA	V3m	☎	🕮	◑	✉			CDMA		Apr-08
272	MOTOROLA	V3x	☎	🕮	◑	✉	🗁		GSM	9	Jul-06
273	MOTOROLA	V3xx	☎	🕮	◑	✉	🗁		GSM	9	Oct-09
274	MOTOROLA	V400	☎	🕮	◑	✉			GSM	24	Jan-08
275	MOTOROLA	V500	☎	🕮	◑	✉			GSM	24	Jul-08
276	MOTOROLA	V525	☎	🕮	◑	✉	🗁		GSM	24	Dec-05
277	MOTOROLA	V540	☎	🕮	◑	✉			GSM	24	Jul-07
278	MOTOROLA	V550	☎	🕮	◑	✉	🗁		GSM	24	Apr-06
279	MOTOROLA	V551	☎	🕮	◑	✉	🗁		GSM	24	Apr-06
280	MOTOROLA	V6	☎	🕮		✉	🗁		GSM	9	Jul-07
281	MOTOROLA	V600	☎	🕮	◑	✉	🗁		GSM		Dec-05
282	MOTOROLA	V60p	☎	🕮	◑	✉			CDMA	24	Dec-05
283	MOTOROLA	V60v	☎	🕮	◑	✉			CDMA	24	Jul-07

284	MOTOROLA	V620	☎	🕮	◑	✉	🗁	▯	GSM	24	Apr-06
285	MOTOROLA	V635	☎	🕮	◑	✉	🗁	▯	GSM	24	Dec-05
286	MOTOROLA	V65p	☎	🕮	◑	✉		▯	CDMA	24	Apr-08
287	MOTOROLA	V66i	☎	🕮	◑	✉		▯	GSM	24	Dec-05
288	MOTOROLA	V70	☎	🕮	◑	✉		▯	GSM	24	Dec-05
289	MOTOROLA	V710	☎	🕮	◑			▯	CDMA	24	Apr-06
290	MOTOROLA	V8	☎	🕮		✉	🗁		GSM		Jan-10
291	MOTOROLA	V80	☎	🕮	◑	✉	🗁	▯	GSM	24	Dec-05
292	MOTOROLA	V860 (Barrage)	☎	🕮	◑	✉	🗁	▯	CDMA	26	May-11
293	MOTOROLA	V9	☎	🕮	◑	✉	🗁	▯	GSM	26	Apr-08
294	MOTOROLA	V950	☎	🕮	◑	✉		▯	CDMA		Jan-10
295	MOTOROLA	V975	☎	🕮	◑	✉	🗁	▯	GSM	24	Jul-08
296	MOTOROLA	V980	☎	🕮	◑	✉	🗁	▯	GSM	24	Dec-05
297	MOTOROLA	V9m	☎	🕮	◑	✉	🗁	▯	CDMA		Apr-08
298	MOTOROLA	VE240	☎	🕮	◑	✉	🗁	▯	CDMA	9	May-11
299	MOTOROLA	W385	☎	🕮	◑	✉	🗁	▯	CDMA		Apr-08
300	MOTOROLA	W450	☎	🕮	◑		🗁	▯	GSM		Oct-09
301	MOTOROLA	W510	☎	🕮	◑	✉	🗁		GSM	9	Jan-08
302	MOTOROLA	W755	☎	🕮	◑	✉	🗁		CDMA		Jan-10
303	MOTOROLA	W840 (Quantico)	☎	🕮	◑	✉	🗁	▯	CDMA	26	May-11
304	MOTOROLA	Z3	☎	🕮	◑	✉	🗁	▯	GSM	9	Apr-07
305	MOTOROLA	Z6	☎	🕮		✉	🗁		GSM		Jan-10
306	MOTOROLA	Z6m	☎	🕮		✉	🗁	▯	CDMA		Apr-08
307	MOTOROLA	Z6tv	☎	🕮	◑	✉	🗁		CDMA		Sep-10
308	MOTOROLA	Z8	☎	🕮		✉		▯	GSM		Jul-08
309	MOTOROLA	Z9	☎	🕮	◑	✉	🗁		GSM	26	Apr-09
310	MOTOROLA	ZN4	☎	🕮	◑	✉	🗁		CDMA		Jan-10
311	MOTOROLA	MB860	☎	🕮	◑	✉	🗁		GSM	26	Dec 2011
312	MOTOROLA	XT610	☎	🕮	◑	✉	🗁		CDMA	26	Dec 2011
313	NDRIVE	S300	☎	🕮	◑	✉	🗁	▯	GSM	9	Apr-09

314	NEO	808i	☎	🕮	◑	✉			GSM		Jan-09
315	NOKIA	1100	☎	🕮	◑	✉			GSM	25(CD-NOK 1)	Oct-07
316	NOKIA	1101	☎	🕮	◑	✉			GSM	25(CD-NOK 1)	Oct-07
317	NOKIA	1110	☎	🕮	◑	✉			GSM	25(CD-NOK 2)	Oct-07
318	NOKIA	1112	☎	🕮	◑	✉			GSM	25(CD-NOK 2)	Oct-07
319	NOKIA	1200	☎	🕮	◑	✉			GSM	25(CD-NOK 1)	Jan-08
320	NOKIA	1208	☎	🕮	◑	✉			GSM	25(CD-NOK 1)	Jan-08
321	NOKIA	1209	☎	🕮	◑	✉			GSM	25(CD-NOK 1)	Apr-09
322	NOKIA	1600	☎	🕮	◑	✉			GSM	25(CD-NOK 2)	Oct-07
323	NOKIA	2100		🕮	◑	✉			GSM	25(CD-NOK 3)	Oct-07
324	NOKIA	2285	☎	🕮	◑				CDMA	999	Oct-06
325	NOKIA	2300	☎	🕮	◑	✉			GSM	25(CD-NOK 1)	Oct-07
326	NOKIA	2310	☎	🕮	◑	✉			GSM	25(CD-NOK 2)	Oct-07
327	NOKIA	2600	☎	🕮	◑	✉	🗁		GSM		Jul-08
328	NOKIA	2610	☎	🕮	◑				GSM	25(CD-NOK 2)	Oct-07
329	NOKIA	2626	☎	🕮	◑				GSM	25(CD-NOK 2)	Oct-07
330	NOKIA	2630	☎	🕮	◑	✉	🗁		GSM		Apr-08

331	NOKIA	2650	☎	🕮	◑	✉	🗁	▯	GSM	25(CD-NOK6)	Oct-07
332	NOKIA	2652	☎	🕮	◑	✉	🗁	▯	GSM	25(CD-NOK6)	Oct-07
333	NOKIA	2680	☎	🕮	◑	✉	🗁		GSM		Jan-09
334	NOKIA	2760	☎	🕮	◑	✉	🗁		GSM		Jan-08
335	NOKIA	3100	☎	🕮	◑	✉	🗁		GSM	999	Oct-06
336	NOKIA	3109	☎	🕮	◑	✉	🗁		GSM	9	Oct-07
337	NOKIA	3110	☎	🕮	◑	✉	🗁		GSM	9	Jul-07
338	NOKIA	3120	☎	🕮	◑	✉	🗁	▯	GSM	999	Jul-08
339	NOKIA	3200		🕮	◑	✉	🗁	▯	GSM	999	Apr-06
340	NOKIA	3210		🕮	◑	✉			GSM	25(CD-NOK8)	Oct-07
341	NOKIA	3220	☎	🕮	◑	✉	🗁		GSM	999	Apr-07
342	NOKIA	3230	☎	🕮	◑	✉	🗁	▯	GSM	12	Apr-07
343	NOKIA	3250	☎	🕮	◑	✉	🗁		GSM	12	Apr-07
344	NOKIA	3310		🕮	◑	✉			GSM	25(CD-NOK9)	Oct-07
345	NOKIA	3330		🕮	◑				GSM	25(CD-NOK9)	Jan-08
346	NOKIA	3410		🕮	◑	✉			GSM	25(CD-NOK9)	Oct-07
347	NOKIA	3510	☎	🕮	◑	✉		▯	GSM	25(CD-NOK5)	Jan-08
348	NOKIA	3555	☎	🕮	◑	✉	🗁		CDMA	26	Oct-08
349	NOKIA	5000	☎	🕮	◑	✉	🗁		GSM		Oct-08
350	NOKIA	5070	☎	🕮	◑	✉	🗁		GSM	999	Jul-07
351	NOKIA	5100	☎	🕮	◑	✉	🗁	▯	GSM	999	Dec-05
352	NOKIA	5110	☎	🕮	◑	✉			GSM	25(CD-NOK7)	Oct-07
353	NOKIA	5140	☎	🕮	◑	✉	🗁		GSM	999	Jul-08

354	NOKIA	5200	☎	🕮	◑	✉	🗁	☐	GSM	9	Apr-07
355	NOKIA	5210	☎	🕮	◑	✉	☐	☐	GSM		Apr-07
356	NOKIA	5220	☎	🕮	◑	✉	🗁	☐	GSM	26	Oct-08
357	NOKIA	5230	☎	🕮	◑	✉	🗁	▤	GSM	26	Sep-10
358	NOKIA	5300	☎	🕮	◑	✉	🗁	☐	GSM	9	Apr-07
359	NOKIA	5310	☎	🕮	◑	✉	🗁	☐	GSM	26	Jan-08
360	NOKIA	5320	☎	🕮	◑	✉	🗁	▤	GSM	26	Jan-09
361	NOKIA	5500	☎	🕮	◑	✉	🗁	▤	GSM	12	Apr-07
362	NOKIA	5610	☎	🕮	◑	✉	🗁	☐	GSM	26	Apr-08
363	NOKIA	5700	☎	🕮	◑	✉	🗁	☐	GSM	9	Jul-07
364	NOKIA	5800	☎	🕮	◑	✉	🗁	▤	GSM	26	Jul-09
365	NOKIA	6010	☎	🕮	◑	✉	☐	▤	GSM	25(CD-NOK5)	Oct-07
366	NOKIA	6020	☎	🕮	◑	✉	🗁	☐	GSM	999	Dec-05
367	NOKIA	6021	☎	🕮	◑	✉	🗁	☐	GSM	999	Apr-06
368	NOKIA	6030	☎	🕮	◑	✉	☐	▤	GSM	25(CD-NOK2)	Oct-07
369	NOKIA	6060	☎	🕮	◑	✉	☐	▤	GSM	25(CD-NOK2)	Oct-07
370	NOKIA	6061	☎	🕮	◑	✉	☐	☐	GSM	25(CD-NOK2)	Apr-08
371	NOKIA	6070	☎	🕮	◑	✉	☐	▤	GSM	999	Oct-06
372	NOKIA	6080	☎	🕮	◑	✉	☐	☐	GSM	999	Jan-07
373	NOKIA	6085	☎	🕮	◑	✉	🗁	☐	GSM	12	Jul-07
374	NOKIA	6086	☎	🕮	◑	✉	🗁	☐	GSM	12	Apr-08
375	NOKIA	6100	☎	🕮	◑	✉	🗁	▤	GSM	999	Dec-05
376	NOKIA	6101	☎	🕮	◑	✉	🗁	☐	GSM	999	Dec-05
377	NOKIA	6103	☎	🕮	◑	✉	🗁	▤	GSM	999	Oct-06
378	NOKIA	6108	☎	🕮	◑	✉	🗁	▤	GSM	999	Oct-07
379	NOKIA	6111	☎	🕮	◑	✉	🗁	☐	GSM	12	Apr-06

380	NOKIA	6120	☎	🕮	◑	✉	🗁	▯	GSM	9	Jan-08
381	NOKIA	6125	☎	🕮	◑	✉	🗁	▯	GSM	12	Oct-06
382	NOKIA	6130	☎	🕮	◑	✉	▯	▯	GSM	25(CD-NOK7)	Oct-07
383	NOKIA	6131	☎	🕮	◑	✉	🗁	▯	GSM	12	Jul-06
384	NOKIA	6136	☎	🕮	◑	✉	🗁	▯	GSM	12	Jan-07
385	NOKIA	6150	☎	🕮	◑	✉	▯	▯	GSM	25(CD-NOK7)	Oct-07
386	NOKIA	6151	☎	🕮	◑	✉	🗁	▯	GSM	12	Oct-06
387	NOKIA	6170	☎	🕮	◑	✉	🗁	▯	GSM	12	Dec-05
388	NOKIA	6200	☎	🕮	◑	✉	🗁	▯	GSM	999	Jul-07
389	NOKIA	6210	☎	🕮	◑	✉	🗁	▯	GSM	26	Jul-09
390	NOKIA	6210	☎	🕮	◑	✉	▯	▯	GSM	25(CD-NOK7)	Oct-07
391	NOKIA	6220	☎	🕮	◑	✉	🗁	▯	GSM	999	Dec-05
392	NOKIA	6225	☎	🕮	◑	✉	🗁	▯	CDMA	999	Jul-07
393	NOKIA	6230	☎	🕮	◑	✉	🗁	▯	GSM	12	Apr-06
394	NOKIA	6233	☎	🕮	◑	✉	🗁	▯	GSM	12	Oct-06
395	NOKIA	6234	☎	🕮	◑	✉	🗁	▯	GSM	12	Jul-07
396	NOKIA	6260	☎	🕮	◑	✉	🗁	▯	GSM	12	Jan-07
397	NOKIA	6263	☎	🕮	◑	✉	🗁	▯	CDMA	9	Oct-08
398	NOKIA	6267	☎	🕮	◑	✉	🗁	▯	GSM	9	Jan-08
399	NOKIA	6270	☎	🕮	◑	✉	🗁	▯	GSM	12	Jul-06
400	NOKIA	6280	☎	🕮	◑	✉	🗁	▯	GSM	12	Apr-06
401	NOKIA	6282	☎	🕮	◑	✉	🗁	▯	GSM	12	Jul-07
402	NOKIA	6288	☎	🕮	◑	✉	🗁	▯	GSM	12	Jul-07
403	NOKIA	6290	☎	🕮	◑	✉	🗁	▯	GSM	9	Oct-07
404	NOKIA	6300	☎	🕮	◑	✉	🗁	▯	GSM	9	Jul-07
405	NOKIA	6301	☎	🕮	◑	✉	🗁	▯	GSM	9	Jan-09
406	NOKIA	6310	☎	🕮	◑	✉	▯	▯	GSM		Apr-06

407	NOKIA	6360							CDMA	25(CD-NOK7)	Oct-07
408	NOKIA	6510							GSM		Apr-07
409	NOKIA	6555							GSM	26	Jan-08
410	NOKIA	6610							GSM	999	Apr-06
411	NOKIA	6620							GSM	12	Apr-07
412	NOKIA	6630							GSM		Jan-08
413	NOKIA	6650							GSM	26	Jul-09
414	NOKIA	6670							GSM	12	Jan-07
415	NOKIA	6680							GSM	12	Jan-07
416	NOKIA	6790							GSM	26	Sep-10
417	NOKIA	6800							GSM	999	Oct-07
418	NOKIA	6810							GSM	999	Jul-07
419	NOKIA	6820							GSM	999	Apr-06
420	NOKIA	6822							GSM	999	Dec-05
421	NOKIA	7020							GSM	26	Dec-10
422	NOKIA	7110							GSM	25(CD-NOK7)	Oct-07
423	NOKIA	7200							GSM	999	Oct-06
424	NOKIA	7210							GSM	26	Jan-09
425	NOKIA	7210							GSM	999	Dec-05
426	NOKIA	7260							GSM	999	Apr-06
427	NOKIA	7270							GSM	12	Dec-05
428	NOKIA	7280							GSM		Dec-05
429	NOKIA	7360							GSM	999	Apr-06
430	NOKIA	7370							GSM	12	Apr-06
431	NOKIA	7373							GSM	12	Apr-07
432	NOKIA	7380							GSM		Apr-06
433	NOKIA	7390							GSM	9	Apr-07
434	NOKIA	7500							GSM	9	Jan-08
435	NOKIA	7510							GSM	26	Jul-09

436	NOKIA	7600	☎	🕮	◑	✉	🗁	▯	GSM	12	Dec-05
437	NOKIA	7610	☎	🕮	◑	✉	🗁	▯	GSM	12	Jan-07
438	NOKIA	7900	☎	🕮	◑	✉	🗁		GSM	26	Apr-08
439	NOKIA	8210	☎	🕮	◑	✉			GSM	25(CD-NOK3)	Apr-07
440	NOKIA	8310	☎	🕮	◑	✉		▯	GSM		Apr-07
441	NOKIA	8800	☎	🕮	◑	✉	🗁		GSM		Dec-05
442	NOKIA	8850	☎	🕮	◑	✉			GSM		Apr-07
443	NOKIA	8910	☎	🕮	◑	✉		▯	GSM		Dec-05
444	NOKIA	1110i	☎	🕮	◑	✉		▯	GSM	25(CD-NOK2)	Oct-07
445	NOKIA	2323 Classic	☎	🕮	◑	✉	🗁		GSM		Oct-09
446	NOKIA	2330 Classic	☎	🕮	◑	✉	🗁		GSM		Oct-09
447	NOKIA	2700 Classic	☎	🕮	◑	✉	🗁		GSM	26	Oct-09
448	NOKIA	2720 Fold	☎	🕮	◑	✉	🗁		GSM		Jan-10
449	NOKIA	2730 Classic	☎	🕮	◑	✉	🗁		GSM	26	Jan-10
450	NOKIA	2865i	☎	🕮	◑	✉	🗁		CDMA	12	Jan-08
451	NOKIA	3120 Classic	☎	🕮	◑	✉	🗁		GSM	26	Apr-09
452	NOKIA	3155i	☎	🕮	◑	✉	🗁		CDMA	12	Apr-08
453	NOKIA	3500 classic	☎	🕮	◑	✉	🗁		GSM	9	Jan-08
454	NOKIA	3510i	☎	🕮	◑	✉		▯	GSM	25(CD-NOK5)	Oct-07
455	NOKIA	3600 Slide	☎	🕮	◑	✉	🗁		GSM	26	Oct-08
456	NOKIA	3720 Classic	☎	🕮	◑	✉	🗁		GSM	26	Jan-10
457	NOKIA	5130 Xpress Music	☎	🕮	◑	✉	🗁		GSM	26	Oct-09
458	NOKIA	5140i	☎	🕮	◑	✉			GSM	999	Dec-05
459	NOKIA	5530 Xpress Music	☎	🕮	◑	✉	🗁	▯	GSM	26	Oct-09
460	NOKIA	5630 Xpress Music	☎	🕮	◑	✉	🗁	▯	GSM	26	Oct-09
461	NOKIA	5730 Xpress Music	☎	🕮	◑	✉	🗁	▯	GSM	26	Oct-09
462	NOKIA	6015i	☎	🕮	◑	✉	🗁	▯	CDMA	999	Oct-06

463	NOKIA	6030b	☎	🕮	◑	✉	▯	▯	GSM	25(CD-NOK2)	Jan-10
464	NOKIA	6110 Navigator	☎	🕮	◑	✉	🗁	▯	GSM	9	Oct-07
465	NOKIA	6124c	☎	🕮	◑	✉	🗁	▤	GSM	9	Jan-09
466	NOKIA	6155i	☎	🕮	◑	✉	🗁	▯	CDMA	12	Apr-08
467	NOKIA	6165i	☎	🕮	◑	✉	🗁	▯	CDMA	12	Jan-07
468	NOKIA	6208 Classic	☎	🕮	◑	✉	🗁	▯	GSM	26	Oct-09
469	NOKIA	6212 Classic	☎	🕮	◑	✉	🗁	▯	GSM	26	Oct-09
470	NOKIA	6220 Classic	☎	🕮	◑	✉	🗁	▤	GSM	26	Apr-09
471	NOKIA	6230i	☎	🕮	◑	✉	▯	▯	GSM	12	Apr-06
472	NOKIA	6235i	☎	🕮	◑	▯	🗁	▯	CDMA	12	Apr-06
473	NOKIA	6255i	☎	🕮	◑	▯	🗁	▯	CDMA	12	Apr-06
474	NOKIA	6260 Slide	☎	🕮	◑	✉	🗁	▯	GSM	26	Oct-09
475	NOKIA	6265i	☎	🕮	◑	✉	🗁	▯	CDMA	12	Jan-08
476	NOKIA	6275i	☎	🕮	◑	✉	🗁	▯	GSM	12	Apr-08
477	NOKIA	6303 Classic	☎	🕮	◑	✉	🗁	▯	GSM	26	Oct-09
478	NOKIA	6310i	☎	🕮	◑	✉	▯	▤	GSM		Apr-07
479	NOKIA	6500 classic	☎	🕮	◑	✉	🗁	▯	GSM	26	Jan-08
480	NOKIA	6500 Slide	☎	🕮	◑	✉	🗁	▯	GSM	26	Apr-08
481	NOKIA	6600 fold	☎	🕮	◑	✉	🗁	▯	GSM	26	Jan-09
482	NOKIA	6600 slide	☎	🕮	◑	✉	🗁	▯	GSM	26	Jan-09
483	NOKIA	6600i Slide	☎	🕮	◑	✉	🗁	▯	GSM	26	Jan-10
484	NOKIA	6610i	☎	🕮	◑	✉	🗁	▤	GSM	999	Dec-05
485	NOKIA	6700 Classic	☎	🕮	◑	✉	🗁	▯	GSM	26	Jan-10
486	NOKIA	6720 Classic	☎	🕮	◑	✉	🗁	▤	GSM	26	Oct-09
487	NOKIA	6730 Classic	☎	🕮	◑	✉	🗁	▤	GSM	26	Oct-09
488	NOKIA	6760 Slide	☎	🕮	◑	✉	🗁	▤	GSM	26	Jan-10
489	NOKIA	7100 Supernova	☎	🕮	◑	✉	🗁	▯	GSM		Apr-09
490	NOKIA	7250i	☎	🕮	◑	✉	🗁	▤	GSM	999	Dec-05
491	NOKIA	7310 Supernova	☎	🕮	◑	✉	🗁	▯	GSM	26	Oct-08
492	NOKIA	7610 Supernova	☎	🕮	◑	✉	🗁	▯	GSM	26	Oct-08

493	NOKIA	8600 Luna	☎	🕮	◑	✉	🗁	▯	GSM	26	Oct-08
494	NOKIA	8910i	☎	🕮	◑	✉	▯	▤	GSM		Dec-05
495	NOKIA	E50	☎	🕮	◑	✉	🗁	▯	GSM	12	Apr-07
496	NOKIA	E51	☎	🕮	◑	✉	🗁	▯	GSM	9	Apr-08
497	NOKIA	E55	☎	🕮	◑	✉	🗁	▤	GSM	26	Jan-10
498	NOKIA	E60	☎	🕮	◑	✉	🗁	▤	GSM	12	Apr-07
499	NOKIA	E61	☎	🕮	◑	✉	🗁	▯	GSM	12	Apr-07
500	NOKIA	E63	☎	🕮	◑	✉	🗁	▤	GSM	26	Apr-09
501	NOKIA	E65	☎	🕮	◑	✉	🗁	▤	GSM	12	Apr-07
502	NOKIA	E66	☎	🕮	◑	✉	🗁	▯	GSM	26	Oct-08
503	NOKIA	E70	☎	🕮	◑	✉	🗁	▯	GSM	12	Apr-07
504	NOKIA	E71	☎	🕮	◑	✉	🗁	▤	GSM	26	Oct-08
505	NOKIA	E75	☎	🕮	◑	✉	🗁	▤	GSM	26	Jul-09
506	NOKIA	N70	☎	🕮	◑	✉	🗁	▤	GSM	12	Jan-07
507	NOKIA	N71	☎	🕮	◑	✉	🗁	▯	GSM	12	Jul-07
508	NOKIA	N72	☎	🕮	◑	✉	🗁	▤	GSM	12	Jan-07
509	NOKIA	N73	☎	🕮	◑	✉	🗁	▤	GSM	12	Apr-07
510	NOKIA	N76	☎	🕮	◑	✉	🗁	▤	GSM	9	Jul-07
511	NOKIA	N77	☎	🕮	◑	✉	🗁	▤	GSM	12	Oct-08
512	NOKIA	N79	☎	🕮	◑	✉	🗁	▤	GSM	26	Jan-09
513	NOKIA	N80	☎	🕮	◑	✉	🗁	▯	GSM	12	Apr-07
514	NOKIA	N81 8GB	☎	🕮	◑	✉	🗁	▤	GSM	26	Apr-08
515	NOKIA	N82	☎	🕮	◑	✉	🗁	▤	GSM	26	Jul-08
516	NOKIA	N85	☎	🕮	◑	✉	🗁	▤	GSM	26	Apr-09
517	NOKIA	N90	☎	🕮	◑	✉	🗁	▤	GSM	12	Jan-07
518	NOKIA	N91	☎	🕮	◑	✉	🗁	▤	GSM	9	Apr-07
519	NOKIA	N93	☎	🕮	◑	✉	🗁	▤	GSM	12	Apr-08
520	NOKIA	N93i	☎	🕮	◑	✉	🗁	▤	GSM	12	Jul-07
521	NOKIA	N95	☎	🕮	◑	✉	🗁	▤	GSM	9	Jan-08
522	NOKIA	N95 8GB	☎	🕮	◑	✉	🗁	▤	GSM	9	Jul-08

523	NOKIA	N96	☎	🕮	◑	✉	🗁	▯	GSM	26	Oct-08
524	NOKIA	N97	☎	🕮	◑	✉	🗁	▯	GSM	26	Oct-09
525	NOKIA	N97 mini	☎	🕮	◑	✉	🗁	▯	GSM	26	Sep-10
526	NOKIA	X3	☎	🕮	◑	✉	🗁		GSM	26	Dec-10
527	NOKIA	X6	☎	🕮	◑	✉	🗁	▯	GSM	26	May-11
528	NOKIA	6350	☎	🕮	◑	✉	🗁		GSM	26	Dec 2011
529	NOKIA	X2-01	☎	🕮	◑	✉	🗁		GSM	26	Dec 2011
530	O2	ICE	☎	🕮		✉	🗁	▯	GSM	5	Oct-07
531	O2	XDA		🕮	◑	✉	🗁	▯	GSM		Jul-06
532	O2	XDA IIi		🕮	◑	✉	🗁	▯	GSM		Jul-06
533	ORANGE	SPV C500		🕮	◑	✉	🗁	▯	GSM	9	Jul-06
534	ORANGE	SPV C550		🕮	◑	✉	🗁	▯	GSM	9	Jul-06
535	ORANGE	SPV C600	☎	🕮	◑	✉	🗁	▯	GSM	9	Jul-06
536	PALM	700P		🕮	◑	✉		▯	CDMA	11	Jan-10
537	PALM	Centro		🕮	◑			▯	GSM	11	Jan-09
538	PALM	Treo 500	☎	🕮	◑	✉	🗁	▯	GSM	9	Jan-09
539	PALM	Treo 680		🕮	◑			▯	GSM	11	Apr-08
540	PALM	Treo 750	☎	🕮	◑		🗁	▯	GSM		Jul-07
541	PALM	Treo Pro	☎	🕮	◑	✉	🗁	▯	GSM	9	Jan-09
542	**PANTECH**	**P8000**	☎	🕮	◑	✉	🗁	▯	**GSM**	**26**	**Apr-12**
543	SAGEM	my302X	☎	🕮	◑	✉	🗁	▯	GSM		Apr-07
544	SAGEM	my401C	☎	🕮	◑	✉	🗁	▯	GSM		Jan-08
545	SAGEM	my401V	☎	🕮	◑	✉	🗁	▯	GSM		Apr-07
546	SAGEM	my401X	☎	🕮	◑	✉	🗁	▯	GSM		Apr-07
547	SAGEM	my411C	☎	🕮	◑	✉		▯	GSM		Jan-08
548	SAGEM	my411Cv	☎	🕮	◑	✉		▯	GSM		Jan-08
549	SAGEM	my411X	☎	🕮	◑	✉	🗁	▯	GSM		Jan-08
550	SAGEM	my501C	☎	🕮	◑	✉		▯	GSM		Apr-07
551	SAGEM	my511X	☎	🕮	◑	✉		▯	GSM		Jan-08
552	SAGEM	my600v	☎	🕮	◑	✉		▯	GSM		Jul-07
553	SAGEM	my700X	☎	🕮	◑	✉	🗁	▯	GSM		Apr-07

554	SAGEM	myV-55							GSM		Jan-08
555	SAGEM	myV-65							GSM		Jan-08
556	SAGEM	myX5-2							GSM		Jan-08
557	SAGEM	myX-6							GSM		Jan-08
558	SAMSUNG	B2100							GSM	29	Jul-09
559	SAMSUNG	B2700							GSM	29	Apr-09
560	SAMSUNG	B3310							GSM	26	Oct-09
561	SAMSUNG	B5702							GSM	29	Oct-09
562	SAMSUNG	B7300							GSM	26	Jan-10
563	SAMSUNG	C3050							GSM	29	Jul-09
564	SAMSUNG	C6625							GSM	29	Oct-09
565	SAMSUNG	E1360							GSM		Oct-09
566	SAMSUNG	E2210							GSM		Oct-09
567	SAMSUNG	I8000							GSM	26	Jan-10
568	SAMSUNG	i8510							GSM		Apr-09
569	SAMSUNG	M3200							GSM	29	Jan-10
570	SAMSUNG	M7500							GSM	26	Jul-09
571	SAMSUNG	M7600							GSM	26	Jul-09
572	SAMSUNG	M8800							GSM	29	Apr-09
573	SAMSUNG	S3030							GSM	29	Oct-09
574	SAMSUNG	S3100							GSM	29	Jan-10
575	SAMSUNG	S3500							GSM	29	Apr-09
576	SAMSUNG	S3600							GSM		Jan-10
577	SAMSUNG	S3650							GSM	29	Jan-10
578	SAMSUNG	S5050							GSM	29	Oct-09
579	SAMSUNG	S5230							GSM	29	Oct-09
580	SAMSUNG	S5600							GSM	26	Oct-09
581	SAMSUNG	S7220							GSM	26	Jul-09
582	SAMSUNG	S7330							GSM	29	Apr-09
583	SAMSUNG	S8000							GSM	26	Oct-09

584	SAMSUNG	S8300	☎ 🕘	🕮		✉ 🕘	🗁		GSM	26	Jul-09
585	SAMSUNG	SCH-A310	☎	🕮		✉ 🕘			CDMA	13	Apr-06
586	SAMSUNG	SCH-A530	☎	🕮		✉ 🕘			CDMA	13	Apr-06
587	SAMSUNG	SCH-A570	☎	🕮		✉			CDMA	13	Oct-06
588	SAMSUNG	SCH-A630	☎	🕮		✉			CDMA	23	Oct-06
589	SAMSUNG	SCH-A650	☎	🕮		✉ 🕘			CDMA	13	Apr-06
590	SAMSUNG	SCH-A670	☎	🕮		✉ 🕘			CDMA	13	Apr-06
591	SAMSUNG	SCH-A795	☎	🕮	🕘	✉ 🕘			CDMA	23	Apr-08
592	SAMSUNG	SCH-A850	☎	🕮	🕘	✉ 🕘	🗁		CDMA	23	Apr-08
593	SAMSUNG	SCH-A870	☎	🕮	🕘	✉ 🕘			CDMA	23	Apr-08
594	SAMSUNG	SCH-A930	☎	🕮	🕘	✉ 🕘	🗁		CDMA	23	Apr-08
595	SAMSUNG	SCH-A950	☎	🕮	🕘	✉	🗁		CDMA	23	Apr-08
596	SAMSUNG	SCH-A990	☎	🕮	🕘	✉ 🕘	🗁		CDMA	23	Apr-08
597	SAMSUNG	SCH-i220	☎ 🕘	🕮	🕘	✉ 🕘	🗁		CDMA	26	May-11
598	SAMSUNG	SCH-i600		🕮		✉ 🕘	🗁		GSM		Jul-06
599	SAMSUNG	SCH-i730	☎ 🕘	🕮	🕘	✉ 🕘	🗁		CDMA		Jul-06
600	SAMSUNG	SCH-i760	☎ 🕘	🕮	🕘	✉ 🕘	🗁		GSM	30	Jul-08
601	SAMSUNG	SCH-i920	☎ 🕘	🕮	🕘	✉ 🕘	🗁		CDMA	26	Dec-10
602	SAMSUNG	SCH-R450	☎	🕮	🕘	✉ 🕘			CDMA	29	Jul-09
603	SAMSUNG	SCH-U340	☎	🕮	🕘	✉	🗁		CDMA	23	Jul-09
604	SAMSUNG	SCH-U350	☎	🕮	🕘	✉ 🕘	🗁		CDMA	29	Dec-10
605	SAMSUNG	SCH-U410	☎	🕮	🕘	✉ 🕘	🗁		CDMA	23	Apr-08
606	SAMSUNG	SCH-U650	☎	🕮	🕘	✉ 🕘			CDMA	29	Jul-09
607	SAMSUNG	SCH-U740	☎	🕮	🕘	✉ 🕘	🗁		CDMA	22	Jan-10
608	SAMSUNG	SCH-U820	☎	🕮	🕘	✉ 🕘	🗁		CDMA	26	Dec-10
609	SAMSUNG	SCH-U940	☎	🕮	🕘	✉ 🕘			CDMA	29	Jul-09
610	SAMSUNG	SGH-A177	☎ 🕘	🕮	🕘	✉ 🕘	🗁		GSM	29	Jan-10
611	SAMSUNG	SGH-A300	☎	🕮	🕘				GSM	14	Dec-05
612	SAMSUNG	SGH-A517	☎ 🕘	🕮	🕘	✉ 🕘	🗁		GSM	29	Apr-08
613	SAMSUNG	SGH-A687	☎ 🕘	🕮		✉ 🕘	🗁		GSM	29	Dec-10
614	SAMSUNG	SGH-A707	☎	🕮			🗁		GSM	22	Jan-08

615	SAMSUNG	SGH-A717	☎	🕮	◑		🗁	🗏	GSM	22	Jan-08
616	SAMSUNG	SGH-A727	☎	🕮	◑		🗁	🗏	GSM	22	Jan-08
617	SAMSUNG	SGH-A737	☎	🕮		✉ 🕘	🗁	🗏	GSM	29	Oct-08
618	SAMSUNG	SGH-A747	☎ 🕘	🕮		✉ 🕘	🗁	🗏	GSM	29	Oct-08
619	SAMSUNG	SGH-A767	☎ 🕘	🕮		✉ 🕘	🗁	🗏	GSM	29	Jul-09
620	SAMSUNG	SGH-A777	☎ 🕘	🕮		✉ 🕘	🗁	🗏	GSM	29	Dec-10
621	SAMSUNG	SGH-A827	☎ 🕘	🕮		✉ 🕘	🗁	🗏	GSM	29	Oct-08
622	SAMSUNG	SGH-A837	☎ 🕘	🕮		✉ 🕘	🗁	🗏	GSM	29	Jul-09
623	SAMSUNG	SGH-A877	☎ 🕘	🕮		✉ 🕘	🗁	🗏	GSM	29B	Dec-10
624	SAMSUNG	SGH-A887	☎ 🕘	🕮		✉ 🕘	🗁	🗏	GSM	29B	Dec-10
625	SAMSUNG	SGH-C100	☎	🕮	◑ 🕘	✉	🗁	🗏	GSM	14	Dec-05
626	SAMSUNG	SGH-C207	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	🗏	GSM	14	Jul-06
627	SAMSUNG	SGH-C225	☎ 🕘	🕮	◑ 🕘	✉	🗁	🗏	GSM	14	Dec-05
628	SAMSUNG	SGH-C300	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	🗏	GSM	14	Jan-08
629	SAMSUNG	SGH-D307	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	🗏	GSM	13	Jul-06
630	SAMSUNG	SGH-D357	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	🗏	GSM	13	Jul-07
631	SAMSUNG	SGH-D407	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	🗏	GSM		Oct-07
632	SAMSUNG	SGH-D410	☎ 🕘	🕮	◑ 🕘	✉	🗁	🗏	GSM	14	Dec-05
633	SAMSUNG	SGH-D500	☎ 🕘	🕮	◑ 🕘	✉	🗁	🗏	GSM	13	Dec-05
634	SAMSUNG	SGH-D520	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	🗏	GSM	22	Apr-07
635	SAMSUNG	SGH-D600	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	🗏	GSM	13	Apr-06
636	SAMSUNG	SGH-D720	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	🗏	GSM	5	Jul-07
637	SAMSUNG	SGH-D780	☎ 🕘	🕮	◑	✉ 🕘	🗁	🗏	GSM	29	Jan-09
638	SAMSUNG	SGH-D800	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	🗏	GSM	22	Oct-06
639	SAMSUNG	SGH-D807	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	🗏	GSM	22	Apr-08
640	SAMSUNG	SGH-D820	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	🗏	GSM	22	Oct-06
641	SAMSUNG	SGH-D830	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	🗏	GSM	22	Apr-07
642	SAMSUNG	SGH-D840	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	🗏	GSM	22	Jul-07
643	SAMSUNG	SGH-D880	☎ 🕘	🕮	◑	✉ 🕘	🗁	🗏	GSM	29	Jul-08
644	SAMSUNG	SGH-D900	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	🗏	GSM	22	Apr-07
645	SAMSUNG	SGH-D900i	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	🗏	GSM	22	Oct-07

646	SAMSUNG	SGH-D980	☎ 🕘	🕮	◑	✉ 🕘	☐	🗎	GSM	29	Apr-09
647	SAMSUNG	SGH-E105	☎ 🕘	🕮	◑	✉ 🕘	☐	🗎	GSM	14	Apr-06
648	SAMSUNG	SGH-E210	☎ 🕘	🕮	☐	✉ 🕘	🗁	🗎	GSM		Jan-08
649	SAMSUNG	SGH-E250	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	🗎	GSM	22	Apr-07
650	SAMSUNG	SGH-E330	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	🗎	GSM	20	Oct-06
651	SAMSUNG	SGH-E335	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	🗎	GSM	20	Oct-06
652	SAMSUNG	SGH-E350	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	🗎	GSM	13	Dec-05
653	SAMSUNG	SGH-E370	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	🗎	GSM	13	Jan-07
654	SAMSUNG	SGH-E390	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	🗎	GSM	22	Apr-07
655	SAMSUNG	SGH-E530	☎ 🕘	🕮	◑ 🕘	✉	🗁	☐	GSM		Dec-05
656	SAMSUNG	SGH-E570	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	☐	GSM	22	Apr-07
657	SAMSUNG	SGH-E590	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	🗎	GSM	22	Oct-07
658	SAMSUNG	SGH-E600	☎ 🕘	🕮	◑ 🕘	✉ 🕘	☐	🗎	GSM	14	Jul-07
659	SAMSUNG	SGH-E630	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	🗎	GSM	20	Apr-06
660	SAMSUNG	SGH-E700	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	🗎	GSM	20	Dec-05
661	SAMSUNG	SGH-E715	☎ 🕘	🕮	◑ 🕘	✉ 🕘	☐	🗎	GSM	14	Oct-06
662	SAMSUNG	SGH-E720	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	🗎	GSM	5	Dec-05
663	SAMSUNG	SGH-E730	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	🗎	GSM	13	Dec-05
664	SAMSUNG	SGH-E740	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	🗎	GSM	22	Jan-08
665	SAMSUNG	SGH-E760	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	🗎	GSM	13	Dec-05
666	SAMSUNG	SGH-E770	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	🗎	GSM	13	Apr-06
667	SAMSUNG	SGH-E800	☎ 🕘	🕮	◑ 🕘	✉	🗁	🗎	GSM	20	Dec-05
668	SAMSUNG	SGH-E830	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	🗎	GSM	22	Apr-08
669	SAMSUNG	SGH-E840	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	🗎	GSM	22	Oct-07
670	SAMSUNG	SGH-E870	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	🗎	GSM	22	Oct-06
671	SAMSUNG	SGH-E880	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	☐	GSM		Jul-07
672	SAMSUNG	SGH-E900	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	🗎	GSM	22	Jan-07
673	SAMSUNG	SGH-E950	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	🗎	GSM	22	Jan-08
674	SAMSUNG	SGH-F110	☎ 🕘	🕮	◑	✉ 🕘	☐	🗎	GSM	29	Oct-08
675	SAMSUNG	SGH-F210	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	🗎	GSM		Jan-08
676	SAMSUNG	SGH-F250	☎	🕮	◑	✉	🗁	🗎	GSM	29	Jan-09

677	SAMSUNG	SGH-F300	☎	🕮	◑	✉	🗁	🗎	GSM	22	Jul-07
678	SAMSUNG	SGH-F330	☎	🕮	◑	✉	🗁	🗎	GSM	29	Jul-08
679	SAMSUNG	SGH-F400	☎	🕮	◑	✉	🗁	🗎	GSM	29	Jul-08
680	SAMSUNG	SGH-F480	☎	🕮		✉	🗁	🗎	GSM	29	Jan-09
681	SAMSUNG	SGH-F490	☎	🕮	◑	✉	🗁	🗎	GSM	29	Jul-08
682	SAMSUNG	SGH-F500	☎	🕮	◑	✉	🗁	🗎	GSM	22	Oct-07
683	SAMSUNG	SGH-F700	☎	🕮		✉	🗁	🗎	GSM	29	Apr-09
684	SAMSUNG	SGH-G400	☎	🕮		✉	🗁	🗎	GSM	29	Apr-09
685	SAMSUNG	SGH-G600	☎	🕮	◑	✉	🗁	🗎	GSM		Jan-08
686	SAMSUNG	SGH-G800	☎	🕮	◑	✉	🗁	🗎	GSM	29	Jul-08
687	SAMSUNG	SGH-G810	☎	🕮	◑	✉	🗁	🗎	GSM	26	Apr-09
688	SAMSUNG	SGH-i200	☎	🕮	◑	✉	🗁	🗎	GSM	29	Jan-09
689	SAMSUNG	SGH-i300	☎	🕮	◑	✉	🗁	🗎	GSM	5	Oct-07
690	SAMSUNG	SGH-i320	☎	🕮	◑	✉	🗁	🗎	GSM		Jan-07
691	SAMSUNG	SGH-i325	☎	🕮	◑	✉	🗁	🗎	GSM	29	Jan-09
692	SAMSUNG	SGH-i600	☎	🕮	◑	✉	🗁	🗎	CDMA	9	Oct-07
693	SAMSUNG	SGH-i607	☎	🕮	◑	✉	🗁	🗎	GSM	22	Jul-07
694	SAMSUNG	SGH-i617	☎	🕮	◑	✉	🗁	🗎	GSM	29	Oct-08
695	SAMSUNG	SGH-i620	☎	🕮	◑	✉	🗁	🗎	GSM	22	Jan-09
696	SAMSUNG	SGH-i710	☎	🕮	◑	✉	🗁	🗎	GSM	22	Oct-07
697	SAMSUNG	SGH-i780	☎	🕮	◑	✉	🗁	🗎	GSM	29	Jul-09
698	SAMSUNG	SGH-i900	☎	🕮	◑	✉	🗁	🗎	GSM	29	Jan-09
699	SAMSUNG	SGH-J600	☎	🕮		✉	🗁	🗎	GSM	22	Jan-08
700	SAMSUNG	SGH-J610	☎	🕮		✉	🗁	🗎	GSM	29	Oct-08
701	SAMSUNG	SGH-J700	☎	🕮	◑	✉	🗁	🗎	GSM	29	Jul-08
702	SAMSUNG	SGH-L700	☎	🕮		✉	🗁		GSM	29	Jan-10
703	SAMSUNG	SGH-L760	☎	🕮		✉	🗁	🗎	GSM	29	Oct-08
704	SAMSUNG	SGH-L770	☎	🕮		✉	🗁	🗎	GSM		Jan-09
705	SAMSUNG	SGH-M150	☎	🕮	◑	✉	🗁	🗎	GSM	29	Oct-08
706	SAMSUNG	SGH-M610	☎	🕮	◑	✉		🗎	GSM	29	Oct-08

707	SAMSUNG	SGH-P207	☎	🕮	◑	✉		▯	GSM	13	Oct-06
708	SAMSUNG	SGH-P300	☎	🕮		✉			GSM	22	Apr-06
709	SAMSUNG	SGH-P310	☎	🕮	◑	✉	🗁	▯	GSM	22	Apr-07
710	SAMSUNG	SGH-P400	☎	🕮	◑	✉		▯	GSM	14	Dec-05
711	SAMSUNG	SGH-P510	☎	🕮	◑	✉		▯	GSM		Dec-05
712	SAMSUNG	SGH-P520	☎	🕮	◑	✉	🗁	▯	GSM	29	Apr-08
713	SAMSUNG	SGH-P735	☎	🕮	◑	✉	🗁	▯	GSM	5	Dec-05
714	SAMSUNG	SGH-P777	☎	🕮	◑	✉		▯	GSM		Jul-06
715	SAMSUNG	SGH-P850	☎	🕮	◑	✉	🗁	▯	GSM	13	Oct-06
716	SAMSUNG	SGH-S300M	☎	🕮	◑	✉		▯	GSM	14	Oct-06
717	SAMSUNG	SGH-S307	☎	🕮	◑	✉		▯	GSM	14	Dec-05
718	SAMSUNG	SGH-S400i	☎	🕮	◑	✉	🗁		GSM	13	Apr-07
719	SAMSUNG	SGH-S401i	☎	🕮	◑	✉	🗁		GSM	13	Apr-07
720	SAMSUNG	SGH-T301	☎	🕮	◑	✉	🗁	▯	GSM	29	Jan-10
721	SAMSUNG	SGH-T309	☎	🕮	◑	✉	🗁	▯	GSM	13	Jul-06
722	SAMSUNG	SGH-T349	☎	🕮	◑	✉	🗁	▯	GSM		Jan-10
723	SAMSUNG	SGH-T369	☎	🕮	◑	✉	🗁	▯	GSM	26	May-11
724	SAMSUNG	SGH-T429	☎	🕮	◑	✉	🗁	▯	GSM	29	Jul-08
725	SAMSUNG	SGH-T439	☎	🕮	◑	✉	🗁	▯	GSM	29	Oct-08
726	SAMSUNG	SGH-T469	☎	🕮		✉	🗁	▯	GSM		Sep-10
727	SAMSUNG	SGH-T509	☎	🕮	◑	✉	🗁	▯	GSM	22	Jan-07
728	SAMSUNG	SGH-T539	☎	🕮	◑	✉	🗁	▯	GSM	29	Apr-08
729	SAMSUNG	SGH-T609	☎	🕮	◑	✉	🗁	▯	GSM	13	Jan-07
730	SAMSUNG	SGH-T639	☎	🕮		✉	🗁	▯	GSM	29	Oct-08
731	SAMSUNG	SGH-T719	☎	🕮	◑	✉	🗁	▯	GSM	13	Jan-07
732	SAMSUNG	SGH-T729	☎	🕮	◑	✉	🗁	▯	GSM	29	Apr-08
733	SAMSUNG	SGH-T739	☎	🕮	◑	✉	🗁	▯	GSM	29	Oct-08
734	SAMSUNG	SGH-T749	☎	🕮		✉	🗁	▯	GSM	29	Dec-10
735	SAMSUNG	SGH-T809	☎	🕮	◑	✉	🗁	▯	GSM	22	Jul-06
736	SAMSUNG	SGH-T819	☎	🕮		✉	🗁	▯	GSM	29	Oct-08
737	SAMSUNG	SGH-T919	☎	🕮		✉	🗁	▯	GSM	29	Jul-09

738	SAMSUNG	SGH-U100	☎	📖	◑	✉	🗁	📄	GSM		Jul-07
739	SAMSUNG	SGH-U600	☎	📖	◑	✉	🗁	📄	GSM	22	Jul-07
740	SAMSUNG	SGH-U700	☎	📖	◑	✉	🗁	📄	GSM	22	Jan-08
741	SAMSUNG	SGH-U800	☎	📖		✉	🗁	📄	GSM	29	Jan-09
742	SAMSUNG	SGH-U900	☎	📖	◑	✉	🗁	📄	GSM	29	Jul-08
743	SAMSUNG	SGH-X100	☎	📖	◑	✉	🗁	📄	GSM	20	Oct-07
744	SAMSUNG	SGH-X427m	☎	📖	◑	✉		📄	GSM	14	Apr-06
745	SAMSUNG	SGH-X450	☎	📖	◑	✉		📄	GSM	14	Dec-05
746	SAMSUNG	SGH-X460	☎	📖	◑	✉	🗁	📄	GSM	20	Apr-07
747	SAMSUNG	SGH-X475	☎	📖	◑	✉		📄	GSM	20	Oct-06
748	SAMSUNG	SGH-X495	☎	📖	◑	✉	🗁	📄	GSM	20	Jul-08
749	SAMSUNG	SGH-X497	☎	📖	◑	✉	🗁	📄	GSM	20	Jul-08
750	SAMSUNG	SGH-X500	☎	📖	◑	✉	🗁		GSM	13	Apr-08
751	SAMSUNG	SGH-X507	☎	📖	◑	✉	🗁	📄	GSM	13	Apr-07
752	SAMSUNG	SGH-X530	☎	📖	◑	✉		📄	GSM	14	Apr-07
753	SAMSUNG	SGH-X600	☎	📖	◑	✉	🗁	📄	GSM	20	Oct-06
754	SAMSUNG	SGH-X640	☎	📖	◑	✉	🗁	📄	GSM	20	Oct-06
755	SAMSUNG	SGH-X650	☎	📖	◑	✉	🗁	📄	GSM	20	Jul-07
756	SAMSUNG	SGH-X660	☎	📖	◑	✉	🗁		GSM	13	Apr-07
757	SAMSUNG	SGH-X680	☎	📖	◑	✉	🗁		GSM	13	Jul-08
758	SAMSUNG	SGH-X700	☎	📖	◑	✉	🗁	📄	GSM		Oct-07
759	SAMSUNG	SGH-X820	☎	📖	◑	✉	🗁	📄	GSM	22	Oct-06
760	SAMSUNG	SGH-X830	☎	📖	◑	✉	🗁	📄	GSM	22	Apr-07
761	SAMSUNG	SGH-Z240	☎	📖		✉	🗁	📄	GSM	22	Jul-08
762	SAMSUNG	SGH-Z320i	☎	📖	◑	✉	🗁	📄	GSM	30	Apr-09
763	SAMSUNG	SGH-Z510	☎	📖	◑	✉		📄	GSM	22	Jul-06
764	SAMSUNG	SGH-Z720	☎	📖			🗁	📄	GSM	22	Jul-08
765	SAMSUNG	SPH-A513	☎	📖	◑	✉		📄	CDMA	29	Jul-09
766	SAMSUNG	SPH-A580	☎	📖		✉		📄	CDMA	13	Jan-07
767	SAMSUNG	SPH-A600	☎	📖		✉		📄	CDMA	13	Jul-07

768	SAMSUNG	SPH-A620	☎	🕮					CDMA	13	Oct-06
769	SAMSUNG	SPH-A640	☎	🕮		✉ 🕘		▤	CDMA	13	Jul-07
770	SAMSUNG	SPH-A660	☎	🕮		✉ 🕘			CDMA	13	Apr-06
771	SAMSUNG	SPH-A680	☎	🕮		✉ 🕘		▤	CDMA	13	Jul-07
772	SAMSUNG	SPH-A740	☎	🕮		✉ 🕘			CDMA	13	Apr-06
773	SAMSUNG	SPH-A760	☎	🕮		✉ 🕘			CDMA	13	Apr-06
774	SAMSUNG	SPH-A820	☎	🕮		✉ 🕘		▤	CDMA	13	Apr-07
775	SAMSUNG	SPH-A840	☎	🕮		✉ 🕘		▤	CDMA	13	Apr-06
776	SAMSUNG	SPH-A900	☎	🕮	◑ 🕘	✉ 🕘		▤	CDMA	13	Jul-08
777	SAMSUNG	SPH-A920	☎	🕮	◑ 🕘	✉ 🕘		▤	CDMA	13	Jul-08
778	SAMSUNG	SPH-A960	☎	🕮	◑ 🕘	✉ 🕘		▤	CDMA	13	Jul-08
779	SAMSUNG	SPH-M500	☎	🕮	◑ 🕘	✉ 🕘		▤	CDMA	13	Jul-08
780	SAMSUNG	SPH-M540	☎	🕮	◑ 🕘	✉ 🕘			CDMA	26	Jul-09
781	SAMSUNG	SPH-M610	☎	🕮	◑ 🕘	✉ 🕘	🗁	▤	CDMA	22	Dec-10
782	SAMSUNG	SGH-T959V	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁		GSM	26	Dec-12
783	SAMSUNG	SGH-T249	☎ 🕘	🕮	◑ 🕘	✉	🗁	▤	GSM	26	Dec-12
784	**SAMSUNG**	**SCH-i400**	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	▯	**CDMA**	**26**	**Apr-12**
785	**SAMSUNG**	**SPH-D700**	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	▯	**CDMA**	**26**	**Apr-12**
786	**SAMSUNG**	**SGH-T589**	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	▯	**GSM**	**26**	**Apr-12**
787	**SAMSUNG**	**SPH-M910**	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	▯	**CDMA**	**26**	**Apr-12**
788	**SAMSUNG**	**SCH-R350**	☎	🕮	◑ 🕘	✉ 🕘	▯	▤	**CDMA**	**26**	**Apr-12**
789	**SAMSUNG**	**SGH-i727**	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	▯	**GSM**	**26**	**Apr-12**
790	**SAMSUNG**	**SGH-i897**	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	▯	**GSM**	**26**	**Apr-12**
791	**SAMSUNG**	**SGH-i997**	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	▯	**GSM**	**26**	**Apr-12**
792	**SHARP**	**FX PLUS**	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	▯	**GSM**	**26**	**May-12**
793	SIEMENS	A60	☎ 🕘	🕮	◑	✉ 🕘	🗁		GSM	16	Jul-08
794	SIEMENS	A65	☎ 🕘	🕮	◑	✉			GSM	16	Dec-05
795	SIEMENS	A75	☎ 🕘	🕮	◑	✉	🗁		GSM	16	Apr-06
796	SIEMENS	C35	☎ 🕘	🕮	◑	✉ 🕘		▤	GSM	17	Dec-05
797	SIEMENS	C35i	☎ 🕘	🕮	◑	✉ 🕘			GSM	17	Oct-06
798	SIEMENS	C55	☎ 🕘		◑	✉ 🕘			GSM	16	Apr-06

799	SIEMENS	C60	☎ 🕘		◑	✉ 🕘	🗁		GSM	16	Apr-06
800	SIEMENS	C61	☎ 🕘	🕮	◑	✉	🗁		GSM	16	Apr-06
801	SIEMENS	C62	☎ 🕘	🕮	◑ 🕘	✉ 🕘			GSM	16	Dec-05
802	SIEMENS	C65	☎ 🕘	🕮	◑	✉	🗁	🗎	GSM	16	Dec-05
803	SIEMENS	C72	☎ 🕘	🕮	◑	✉	🗁	🗎	GSM	16	Jul-06
804	SIEMENS	CF110	☎ 🕘	🕮	◑	✉	🗁	🗎	GSM	16	Apr-06
805	SIEMENS	CF75	☎ 🕘	🕮	◑	✉	🗁	🗎	GSM	16	Apr-06
806	SIEMENS	CL75	☎ 🕘	🕮	◑	✉			GSM	16	Apr-06
807	SIEMENS	CT66	☎ 🕘	🕮	◑ 🕘	✉	🗁	🗎	GSM	16	Apr-06
808	SIEMENS	CX65	☎ 🕘	🕮	◑	✉	🗁	🗎	GSM	16	Dec-05
809	SIEMENS	M55	☎ 🕘	🕮	◑	✉	🗁	🗎	GSM	16	Jul-06
810	SIEMENS	M65	☎ 🕘	🕮	◑	✉	🗁	🗎	GSM	16	Dec-05
811	SIEMENS	M75	☎ 🕘	🕮	◑	✉ 🕘	🗁	🗎	GSM	16	Apr-06
812	SIEMENS	MC60	☎ 🕘	🕮	◑	✉		🗎	GSM	16	Dec-05
813	SIEMENS	ME45	☎ 🕘	🕮	◑	✉ 🕘		🗎	GSM	17	Jul-08
814	SIEMENS	ME75	☎ 🕘	🕮	◑	✉	🗁	🗎	GSM	16	Apr-06
815	SIEMENS	S55	☎ 🕘	🕮	◑	✉	🗁	🗎	GSM	16	Apr-06
816	SIEMENS	S65	☎ 🕘	🕮	◑	✉	🗁	🗎	GSM	16	Dec-05
817	SIEMENS	S75	☎ 🕘	🕮	◑	✉ 🕘	🗁	🗎	GSM	16	Apr-06
818	SIEMENS	SF65	☎ 🕘	🕮	◑	✉ 🕘	🗁	🗎	GSM		Jul-06
819	SIEMENS	SK65	☎ 🕘	🕮	◑	✉	🗁	🗎	GSM	16	Dec-05
820	SIEMENS	SL55	☎ 🕘	🕮	◑	✉	🗁	🗎	GSM	16	Dec-05
821	SIEMENS	SL65	☎ 🕘	🕮	◑	✉	🗁	🗎	GSM	16	Dec-05
822	SIEMENS	SP65	☎ 🕘	🕮	◑	✉		🗎	GSM		Jul-09
823	SONIM	XP3	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	🗎	GSM		Oct-09
824	SONY ERICSSON	C510	☎ 🕘		◑ 🕘	✉ 🕘	🗁	🗎	GSM	18	Apr-09
825	SONY ERICSSON	C702	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	🗎	GSM		Oct-08
826	SONY ERICSSON	C901	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	🗎	GSM	18	Oct-09
827	SONY ERICSSON	C902	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	🗎	GSM		Oct-08
828	SONY ERICSSON	C903	☎ 🕘	🕮	◑ 🕘	✉ 🕘	🗁	🗎	GSM	18	Oct-09
829	SONY	C905	☎	🕮	◑	✉	🗁	🗎	GSM	18	Apr-09

	ERICSSON										
830	SONY ERICSSON	D750i							GSM	18	Apr-06
831	SONY ERICSSON	F305							GSM		Oct-09
832	SONY ERICSSON	F500i							GSM	2	Dec-05
833	SONY ERICSSON	G502							GSM	18	Oct-08
834	SONY ERICSSON	G700							GSM	18	Jan-09
835	SONY ERICSSON	G705							GSM	18	Apr-09
836	SONY ERICSSON	G900							GSM	18	Jan-09
837	SONY ERICSSON	J105i							GSM	18	Sep-10
838	SONY ERICSSON	J300i							GSM	2	Dec-05
839	SONY ERICSSON	K300i							GSM	2	Dec-05
840	SONY ERICSSON	K310i							GSM	18	Oct-06
841	SONY ERICSSON	K320i							GSM	18	Jan-09
842	SONY ERICSSON	K500i							GSM	2	Dec-05
843	SONY ERICSSON	K510i							GSM	18	Jan-07
844	SONY ERICSSON	K530i							GSM	18	Jan-08
845	SONY ERICSSON	K550i							GSM	18	Jul-07
846	SONY ERICSSON	K550im							GSM	18	Jul-07
847	SONY ERICSSON	K600i							GSM	2	Dec-05
848	SONY ERICSSON	K608i							GSM	2	Oct-06
849	SONY ERICSSON	K610i							GSM	18	Oct-06
850	SONY ERICSSON	K630i							GSM	18	Jul-08
851	SONY ERICSSON	K660i							GSM	18	Jul-08
852	SONY ERICSSON	K700i							GSM	2	Dec-05
853	SONY ERICSSON	K750i							GSM	18	Dec-05
854	SONY ERICSSON	K770i							GSM	18	Jan-08
855	SONY ERICSSON	K800i							GSM	18	Jul-06
856	SONY ERICSSON	K810i							GSM	18	Jul-07
857	SONY ERICSSON	K850i							GSM	18	Jan-08
858	SONY ERICSSON	M600							GSM	18	Jan-09

859	SONY ERICSSON	P1i	☎	🕮	◑	✉			GSM	18	Jan-09
860	SONY ERICSSON	P800	☎	🕮		✉		▤	GSM		Apr-08
861	SONY ERICSSON	P900i	☎	🕮		✉		▤	GSM		Jul-08
862	SONY ERICSSON	P990i	☎	🕮	◑	✉			GSM	18	Jan-09
863	SONY ERICSSON	S302	☎	🕮	◑	✉	🗁		GSM		Oct-09
864	SONY ERICSSON	S312	☎	🕮	◑	✉	🗁		GSM		Jan-10
865	SONY ERICSSON	S500i	☎	🕮	◑	✉	🗁	▤	GSM	18	Oct-07
866	SONY ERICSSON	S700i	☎	🕮	◑	✉	🗁	▤	GSM	2	Dec-05
867	SONY ERICSSON	S710a	☎	🕮	◑	✉	🗁	▤	GSM	2	Apr-06
868	SONY ERICSSON	T230	☎	🕮	◑	✉			GSM	2	Jul-07
869	SONY ERICSSON	T290i	☎	🕮	◑	✉			GSM	2	Dec-05
870	SONY ERICSSON	T300	☎	🕮	◑	✉			GSM	2	Dec-05
871	SONY ERICSSON	T310	☎	🕮	◑	✉			GSM	2	Dec-05
872	SONY ERICSSON	T610	☎	🕮	◑	✉	🗁	▤	GSM	2	Dec-05
873	SONY ERICSSON	T630	☎	🕮	◑	✉	🗁	▤	GSM	2	Dec-05
874	SONY ERICSSON	T650i	☎	🕮	◑	✉	🗁	▤	GSM	18	Jan-08
875	SONY ERICSSON	T68	☎	🕮	◑	✉			GSM	2	Dec-05
876	SONY ERICSSON	T68i	☎	🕮	◑	✉		▤	GSM	2	Oct-06
877	SONY ERICSSON	T700	☎	🕮	◑	✉	🗁	▤	GSM	18	Jan-09
878	SONY ERICSSON	T707	☎	🕮	◑	✉	🗁	▤	GSM	18	Oct-09
879	SONY ERICSSON	T715	☎	🕮	◑	✉	🗁		GSM	18	Jan-10
880	SONY ERICSSON	TM506	☎	🕮	◑	✉	🗁	▤	GSM	18	Dec-10
881	SONY ERICSSON	U100i Yari	☎	🕮	◑	✉	🗁		GSM	18	Jan-10
882	SONY ERICSSON	U10i Aino	☎	🕮	◑	✉	🗁		GSM	18	Jan-10
883	SONY ERICSSON	U1i Satio	☎		◑	✉	🗁		GSM		Jan-10
884	SONY ERICSSON	U5i (Vivaz)	☎	🕮	◑	✉	🗁		GSM	26	May-11
885	SONY ERICSSON	V600i	☎	🕮	◑	✉	🗁	▤	GSM	2	Apr-06
886	SONY ERICSSON	V630i	☎	🕮	◑	✉	🗁	▤	GSM	18	Jul-07
887	SONY ERICSSON	V640i	☎	🕮	◑	✉	🗁	▤	GSM	18	Jul-08
888	SONY	V800	☎	🕮	◑	✉	🗁	▤	GSM	2	Dec-05

	ERICSSON										
889	SONY ERICSSON	W200i							GSM	18	Jul-07
890	SONY ERICSSON	W300i							GSM		Jul-06
891	SONY ERICSSON	W302							GSM		Oct-09
892	SONY ERICSSON	W350							GSM	18	Oct-08
893	SONY ERICSSON	W380i							GSM	18	Jul-08
894	SONY ERICSSON	W395							GSM		Oct-09
895	SONY ERICSSON	W508							GSM	18	Oct-09
896	SONY ERICSSON	W518A							GSM	18	Dec-10
897	SONY ERICSSON	W550i							GSM	18	Dec-05
898	SONY ERICSSON	W580i							GSM	18	Oct-07
899	SONY ERICSSON	W595							GSM	18	Jan-09
900	SONY ERICSSON	W610i							GSM	18	Jul-07
901	SONY ERICSSON	W660i							GSM	18	Jan-08
902	SONY ERICSSON	W705							GSM	18	Apr-09
903	SONY ERICSSON	W710i							GSM	18	Oct-06
904	SONY ERICSSON	W760							GSM		Oct-08
905	SONY ERICSSON	W800i							GSM	18	Dec-05
906	SONY ERICSSON	W810i							GSM	18	Jul-06
907	SONY ERICSSON	W850i							GSM	18	Oct-06
908	SONY ERICSSON	W880i							GSM	18	Apr-07
909	SONY ERICSSON	W890i							GSM	18	Jul-08
910	SONY ERICSSON	W900i							GSM	18	Apr-06
911	SONY ERICSSON	W902							GSM	18	Apr-09
912	SONY ERICSSON	W910i							GSM	18	Jan-08
913	SONY ERICSSON	W950i							GSM	18	Jan-09
914	SONY ERICSSON	W960							GSM	18	Jan-09
915	SONY ERICSSON	W980							GSM	18	Jan-09
916	SONY ERICSSON	W995							GSM	18	Oct-09
917	SONY ERICSSON	X1							GSM	9	Jan-09

918	SONY ERICSSON	X10	☎	🕮	◑	✉	🗁	▯	GSM	26	May-11
919	SONY ERICSSON	Z1010	☎	🕮	◑	✉	🗁	▤	GSM	2	Jul-07
920	SONY ERICSSON	Z310i	☎	🕮	◑	✉	🗁	▤	GSM	18	Jul-07
921	SONY ERICSSON	Z500a	☎	🕮	◑	✉	🗁	▤	GSM	2	Apr-06
922	SONY ERICSSON	Z520a	☎	🕮	◑	✉	🗁	▤	GSM	18	Oct-06
923	SONY ERICSSON	Z520i	☎	🕮	◑	✉	🗁	▤	GSM	18	Dec-05
924	SONY ERICSSON	Z530i	☎	🕮	◑	✉	🗁	▤	GSM	18	Jul-06
925	SONY ERICSSON	Z550i	☎	🕮	◑	✉	🗁	▤	GSM	18	Oct-06
926	SONY ERICSSON	Z555i	☎	🕮	◑	✉	🗁	▤	GSM	18	Jul-08
927	SONY ERICSSON	Z600	☎	🕮	◑	✉	🗁	▤	GSM	2	Dec-05
928	SONY ERICSSON	Z610i	☎	🕮	◑	✉	🗁	▤	GSM	18	Apr-07
929	SONY ERICSSON	Z710i	☎	🕮	◑	✉	🗁	▤	GSM	18	Apr-07
930	SONY ERICSSON	Z770	☎	🕮	◑	✉	🗁	▤	GSM		Oct-08
931	SONY ERICSSON	Z800i	☎	🕮	◑	✉	🗁	▤	GSM	2	Dec-05
932	T-MOBILE	MDA Vario II	▯	🕮	◑	✉	🗁	▤	GSM	9	Jul-08
933	TOSHIBA	G810	☎	🕮	◑	✉	🗁	▤	GSM	9	Jul-09
934	TOSHIBA	G910	☎	🕮	◑	✉	🗁	▤	GSM	9	Jul-09
935	TOSHIBA	Portege G500	☎	🕮	◑	✉	🗁	▤	GSM	9	Jul-07
936	TOSHIBA	Portege G710	☎	🕮	◑	✉	🗁	▤	GSM	9	Apr-09
937	UBiQUiO	401	☎	🕮	◑	✉	🗁	▤	GSM	9	Jul-07
938	UBiQUiO	501	☎	🕮	◑	✉	🗁	▤	GSM	9	Jul-07
939	VERIZON	XV6700	▯	🕮	◑	✉	🗁	▤	GSM	9	Oct-07
940	VISOA	Spiderphone	☎	▯	◑	✉	🗁	▯	GSM		Jan-10
941	VODAFONE	527	☎	🕮	◑	✉	▯	▤	GSM		Jul-09
942	VODAFONE	533	☎	🕮	◑	✉	▯	▤	GSM		Jul-09
943	VODAFONE	710	☎	🕮	▯	✉	🗁	▤	GSM		Oct-07
944	VODAFONE	725	☎	🕮	▯	✉	🗁	▤	GSM		Jul-09
945	VODAFONE	810	☎	🕮	▯	✉	🗁	▤	GSM		Jul-08
946	VODAFONE	830	☎	🕮	▯	✉	🗁	▤	GSM		Jul-09
947	ZTE	C78	☎	🕮	▯	✉	🗁	▤	CDMA		Sep-10

Handsets – Expected Support

The following handsets have not been verified on CellDEK however their appearance or technology indicates that data extraction will be possible as shown by the icons on CellDEK. These handsets are assigned an amber tick. It is recommended that all data is treated as a minimum extraction as there may be additional data sets available that require further examination.

Data can be extracted from these handsets as normal by selecting the device from the Manufacturers list and extracting over Bluetooth, Infrared or Cable as required.

All Windows Mobile devices can be extracted using the PDA option and selecting Windows. All Windows Mobile devices are supported by Infrared and/or Cable.

HANDSETS EXPECTED SUPPORT

MFG	MODEL	MFG	MODEL	MFG	MODEL
AIRO	A25	ASUS	P550	COMPAQ iPAQ	3835
ACER	beTouch E100	ASUS	P552	COMPAQ iPAQ	3850
ACER	beTouch E200	ASUS	P560	COMPAQ iPAQ	3870
ACER	c510	ASUS	P565	COMPAQ iPAQ	3875
ACER	c530	ASUS	P735	COMPAQ iPAQ	3900
ACER	c531	ASUS	P750	COMPAQ iPAQ	3950
ACER	DX650	ASUS	P835	COMPAQ iPAQ	3955
ACER	DX900	ASUS	V88i	COMPAQ iPAQ	3970
ACER	Liquid	ASUS	Z801	COMPAQ iPAQ	3975
ACER	M900	ASUS	Z810	DAXIAN	CU928
ACER	n10	ASUS	ZX1	DELL	AXIM
ACER	n30	AT&T	2125	DELL	Pocket DJ 20GB
ACER	n35	AT&T	3125	DELL	Pocket DJ 30GB
ACER	n300	AT&T	5700	DELL	X3
ACER	n310	AT&T	8125	DELL	X3i
ACER	n311	AT&T	8500	DELL	X30
ACER	n320	AT&T	8525	DELL	X5
ACER	n321	AT&T	SX56	DELL	X50
ACER	neoTouch	AT&T	SX66	DELL	X50v

AIRIS	T610
AIRIS	T620
AMOI	E72
AMOI	E75
AMOI	E76
AMOI	E78
AMOI	E850
AMOI	E860
AnexTEK	moboDA 3160
AnexTEK	moboDA 3360
AnexTEK	moboDA 3380
AnexTEK	SP310
Apple	iPod Touch
ASUS	A696
ASUS	J501
ASUS	H502
ASUS	M530W
ASUS	M356
ASUS	M930
ASUS	Mars II
ASUS	Mypal A626
ASUS	MyPal A632
ASUS	MyPal A636
ASUS	MyPal A636N
ASUS	MyPal A639
ASUS	MyPal A686
ASUS	P305
ASUS	P320
ASUS	P505
ASUS	P525
ASUS	P526
ASUS	P527
ASUS	P535
DOPOD	D600
DOPOD	D802
AT Mobile	AT Bear
AT Mobile	AT Cobra
AT Mobile	AT Eagle
AT Mobile	AT Falcon
AT Mobile	AT Pelican
AUDIOVOX	5050
AUDIOVOX	5600
AUDIOVOX	6601
AUDIOVOX	XV6600
AUDIOVOX	XV6700
BENQ-SIEMENS	P51
BLACKBERRY	8110
BLACKBERRY	8130 (Pearl)
BLACKBERRY	8220
BLACKBERRY	8230 (Pearl)
BLACKBERRY	Pearl 3G 9100
BLACKBERRY	9105 (Pearl 3G)
BLACKBERRY	Curve 3G 9300
BLACKBERRY	9520
BLACKBERRY	9550
BLACKBERRY	9630
BLACKBERRY	9650 (Bold)
BLACKBERRY	9670 (Style)
BLACKBERRY	Torch 9800
CINGULAR	2125
CINGULAR	3125
CINGULAR	8100
CINGULAR	8125
CINGULAR	SX66
CINGULAR iPAQ	h6320
CINGULAR iPAQ	h6325
COMPAQ iPAQ	3800
COMPAQ iPAQ	3830
FUJITSU SIEMENS	N110
FUJITSU	N500
DELL	X51
DOCOMO	htc Z
DOPOD	310
DOPOD	515
DOPOD	535
DOPOD	565
DOPOD	566
DOPOD	575
DOPOD	585
DOPOD	586
DOPOD	595
DOPOD	686
DOPOD	696
DOPOD	699
DOPOD	700
DOPOD	710
DOPOD	818
DOPOD	830
DOPOD	838
DOPOD	900
DOPOD	577W
DOPOD	586W
DOPOD	696i
DOPOD	818 Pro
DOPOD	828+
DOPOD	838 Pro
DOPOD	C500
DOPOD	C720W
DOPOD	C730
DOPOD	C800
DOPOD	C858
DOPOD	CHT 9000
DOPOD	CHT 9100
HP iPAQ	h3800
HP iPAQ	h3830

		SIEMENS			
		FUJITSU			
DOPOD	D8110	SIEMENS	N520	HP iPAQ	h3835
		FUJITSU			
DOPOD	M700	SIEMENS	N520c	HP iPAQ	h3850
		FUJITSU			
DOPOD	P100	SIEMENS	N520e	HP iPAQ	h3870
		FUJITSU			
DOPOD	P800W	SIEMENS	N520p	HP iPAQ	h3875
		FUJITSU			
DOPOD	S300	SIEMENS	N560	HP iPAQ	h3900
		FUJITSU			
DOPOD	U1000	SIEMENS	N560c	HP iPAQ	h3950
		FUJITSU			
E-PLUS	PDA III	SIEMENS	N560e	HP iPAQ	h3955
		FUJITSU			
E-PLUS	PDA IV	SIEMENS	T810	HP iPAQ	h3970
		FUJITSU			
ETEN	600	SIEMENS	T830	HP iPAQ	h3975
		FUJITSU			
ETEN	600e	SIEMENS	V70	HP iPAQ	h4140
		GARMIN-			
ETEN	DX900	ASUS	Garminfone	HP iPAQ	h4150
ETEN	E500	GIGABYTE	g-Smart	HP iPAQ	h4155
ETEN	E900	GIGABYTE	g-Smart i	HP iPAQ	h4350
ETEN	G500	GIGABYTE	g-Smart i+	HP iPAQ	h4355
			g-Smart		
ETEN	G500+	GIGABYTE	i120	HP iPAQ	h5100
			g-Smart		
ETEN	M500	GIGABYTE	i128	HP iPAQ	h5150
			g-Smart		
ETEN	M550	GIGABYTE	i300	HP iPAQ	h5155
			g-Smart		
ETEN	M600	GIGABYTE	i350	HP iPAQ	h5400
			g-Smart		
ETEN	M600+	GIGABYTE	MS800	HP iPAQ	h5450
			g-Smart		
ETEN	M700	GIGABYTE	MS802	HP iPAQ	h5455
			g-Smart		
ETEN	M800	GIGABYTE	MS804	HP iPAQ	h5500
			g-Smart		
ETEN	M810	GIGABYTE	MS808	HP iPAQ	h5555
			g-Smart		
ETEN	N100	GIGABYTE	MS820	HP iPAQ	h6310
			g-Smart		
ETEN	P100	GIGABYTE	MW700	HP iPAQ	h6315
			g-Smart		
ETEN	P100w	GIGABYTE	MW702	HP iPAQ	h6320
			g-Smart		
ETEN	P120	GIGABYTE	MW998	HP iPAQ	h5325
ETEN	P300	GIGABYTE	g-Smart q60	HP iPAQ	h6340
			g-Smart		
ETEN	P600	GIGABYTE	S1200	HP iPAQ	h6365
			g-Smart		
ETEN	P603	GIGABYTE	t600	HP iPAQ	h6500

ETEN	P610		HP iPAQ	114		HP iPAQ	hw6510
ETEN	P700		HP iPAQ	214		HP iPAQ	hw6515
ETEN	P700i		HP iPAQ	500		HP iPAQ	h6515a
ETEN	T470		HP iPAQ	510		HP iPAQ	h6710
ETEN	T500		HP iPAQ	512		HP iPAQ	h6715
ETEN	V900		HP iPAQ	610c		HP iPAQ	hw6900
ETEN	X500		HP iPAQ	614		HP iPAQ	hw6910
ETEN	X500+		HP iPAQ	614c		HP iPAQ	hw6920
ETEN	X600		HP iPAQ	9120c		HP iPAQ	hw6925
ETEN	X610		HP iPAQ	Glisten		HP iPAQ	h6940
ETEN	X650		HP iPAQ	h1900		HP iPAQ	hw6945
ETEN	X800		HP iPAQ	h1910		HP iPAQ	h6965
EVEREX	NEON		HP iPAQ	h1915		HP iPAQ	hx2000
FITH MEDIA	A308		HP iPAQ	h1920		HP iPAQ	hx2090
FLY	IQ-110		HP iPAQ	h1930		HP iPAQ	nx2110
FUJITSU SIEMENS	410		HP iPAQ	h1935		HP iPAQ	hx2190
FUJITSU SIEMENS	420		HP iPAQ	h1937		HP iPAQ	hx2400
FUJITSU SIEMENS	600		HP iPAQ	h1940		HP iPAQ	hx2410
FUJITSU SIEMENS	710		HP iPAQ	h1945		HP iPAQ	hx2415
FUJITSU SIEMENS	718		HP iPAQ	h2200		HP iPAQ	hx2490
FUJITSU SIEMENS	720		HP iPAQ	h2210		HP iPAQ	hx2495
FUJITSU SIEMENS	610BT		HP iPAQ	h2215		HP iPAQ	hx2700
FUJITSU SIEMENS	C550		HP iPAQ	h3630		HP iPAQ	hx2750
FUJITSU SIEMENS	N100		HP iPAQ	h3670		HP iPAQ	hx2790
HP iPAQ	hx2795		HTC	Himalaya		HTC	Vox
HP iPAQ	hx4700		HTC	Hurricane		HTC	Voyager
HP iPAQ	hx4705		HTC	Imagio		HTC	Wallaby
HP iPAQ	hx4710		HTC	Inspire 4G		HTC	Wizard
HP iPAQ	K3 Obsidian		HTC	Libra		HTC	XV6900
HP iPAQ	rw6815		HTC	Love		IMATE	JAM Black
HP iPAQ	rw6818		HTC	Magician		IMATE	JAMA
HP iPAQ	rw6828		HTC	MAX 4G		IMATE	JAMA101
HP iPAQ	rx1700		HTC	Monet		IMATE	JAMA 201
HP iPAQ	rx1950		HTC	MTeoR		IMATE	JAQ
HP iPAQ	rx1955		HTC	Nike		IMATE	JAQ3
HP iPAQ	rx3100		HTC	Oxygen		IMATE	JAQ4
HP iPAQ	rx3110		HTC	Ozone		IMATE	JASJAM
HP iPAQ	rx3115		HTC	P3350		IMATE	PDA-2
HP iPAQ	rx3400		HTC	P3400		IMATE	EDVO
HP iPAQ	rx3415		HTC	P3600		IMATE	PDAL
HP iPAQ	rx3417		HTC	P4000		IMATE	PDA-N
HP iPAQ	rx3700		HTC	P4350		IMATE	Phone Edition

HP iPAQ	rx3710	HTC	P4450	IMATE	Pocket PC
HP iPAQ	rx3715	HTC	P4500	IMATE	Smartflip
HP iPAQ	rx4240	HTC	P6300	IMATE	Smartphone
HP iPAQ	rx5700	HTC	P6500	IMATE	Smartphone 2
HP iPAQ	rx5900	HTC	Panda	IMATE	SP2
HP iPAQ	rz1700	HTC	Polaris	IMATE	SP3
HP iPAQ	rz1715	HTC	Prophet	IMATE	SP4m
HTC	Advantage X7500	HTC	Pure	IMATE	SP5m
HTC	Advantage X7501	HTC	Robbie	IMATE	SPJAS
HTC	Advantage A7510	HTC	S320	IMATE	Ultimate 5150
HTC	Alphine	HTC	S630	IMATE	Ultimate 6150
HTC	Amadeus	HTC	S720	IMATE	Ultimate 7150
HTC	Apache	HTC	S730	IMATE	Ultimate 8150
HTC	Aria	HTC	Sensation 4G	IMATE	Ultimate 8502
HTC	Artemis	HTC	Shadow Hotspot	IMATE	Ultimate 9150
HTC	Athena	HTC	Shift	IMATE	9502
HTC	Atlas	HTC	Sirius	IMATE	810-F
HTC	Blue Angel	HTC	Sonata	INTERMEC	730
HTC	Breeze	HTC	Star Trek	INTERMEC	730B
HTC	Canary	HTC	Surround	INTERMEC	741B
HTC	Cavalier	HTC	Tanager	INTERMEC	751B
HTC	Charmer	HTC	Thunderbolt	INTERMEC	761B
HTC	Dash 3G	HTC	Tilt2	INTERMEC	CN2B
HTC	Dream	HTC	Touch2	INTERMEC	CN3
HTC	Elf	HTC	Touch 3G	INTERMEC	CN30
HTC	EVO View 4G (Tablet)	HTC	Touch Cruise 09	INTERMEC	Mercury
HTC	Excalibur	HTC	Touch Dual	i-teq	Bond
HTC	Falcon	HTC	Touch HD	i-teq	Laser
HTC	Faraday	HTC	Touch Pro	i-teq	X-Bond
HTC	Feeler	HTC	Touch Pro 2	IZENMOBILE	KRMA KSMT
HTC	Flyer (tablet)	HTC	Touch Viva	KINPO	iDO S601
HTC	Galaxy	HTC	Tilt	KINPO	IDO S630
HTC	Gene	HTC	Trinity	KINPO	SP70
HTC	Harrier	HTC	Typhoon	KINPO	SP70R
HTC	HD2	HTC	TyTN	KINPO	SP90
HTC	Herald	HTC	Universal	KROME	Intellekt iQ200
HTC	Hermes	HTC	Volans	KROME	Intellekt iQ700
KROME	Mega M900i	MITAC	P3400	MOTOROLA	Flipout
KROME	Navigator F1	MITAC	P350	MOTOROLA	Flipside

KROME	Spy		MITAC	P550		NEONODE	N1
LENOVO	ET960		MITAC	OP550m		NEONODE	N1m
LENOVO	ET980		MITAC	P560		NEONODE	N2
LENOVO	i921		MITSUBISHI	Trium Mondo		NEXIO	S160
LG	Incite		MWG	Atom Life		NEXIO	XP40
LG	KB770		MWG	Atom V		NOKIA	2320 Classic
LG	KC1		MWG	Zinc II		NOKIA	2605
LG	KE990		MOTOROLA	A845		NOKIA	2705 Shade
LG	KF300		MOTOROLA	A3100		NOKIA	3205
LG	KF310		MOTOROLA	C250		NOKIA	3606
LG	KF350		MOTOROLA	C343a		NOKIA	3711
LG	KF700		MOTOROLA	C353		NOKIA	5030
LG	KF750		MOTOROLA	C353t		NOKIA	5250
LG	KF755		MOTOROLA	C380		NOKIA	6012
LG	KF770		MOTOROLA	E550		NOKIA	6102
LG	KF900		MOTOROLA	i275		NOKIA	6121
LG	KP100		MOTOROLA	i720		NOKIA	6126
LG	KP501		MOTOROLA	i733		NOKIA	6205
LG	KS20		MOTOROLA	i740		NOKIA	6350
LG	KT610		MOTOROLA	i920		NOKIA	6560
LG	KU380		MOTOROLA	i920		NOKIA	6590
LG	Optimus GT540		MOTOROLA	i930		NOKIA	6681
LG	P509 (Optimus T)		MOTOROLA	MC35		NOKIA	6682
LG	U8100		MOTOROLA	MPx		NOKIA	6710 Navigator
LG	U8150		MOTOROLA	MPx100		NOKIA	6750
LG	U8180		MOTOROLA	T720i		NOKIA	7205
LG	U8210		MOTOROLA	V1150		NOKIA	7250
LG	U8290		MOTOROLA	V120e		NOKIA	8801
LG	U8300		MOTOROLA	V120t		NOKIA	8890
LG	Quantum		MOTOROLA	V120x		NOKIA	6236i
MIO	A502		MOTOROLA	V186		NOKIA	C5
MIO	A702		MOTOROLA	V191		NOKIA	C6
MIO	P3600		MOTOROLA	V330		NOKIA	E5
MIO	P560		MOTOROLA	V505		NOKIA	E52
MITAC	168		MOTOROLA	V535		NOKIA	E61i
MITAC	169		MOTOROLA	V545		NOKIA	E62
MITAC	180		MOTOROLA	V547		NOKIA	E66
MITAC	336		MOTOROLA	V555		NOKIA	E72
MITAC	338		MOTOROLA	V557		NOKIA	E90
MITAC	339		MOTOROLA	V60		NOKIA	N8
MITAC	558		MOTOROLA	V60c		NOKIA	N75
MITAC	728		MOTOROLA	V60g		NOKIA	N78
MITAC	8380		MOTOROLA	V60i		NOKIA	N81
MITAC	8390		MOTOROLA	V60s		NOKIA	N92
MITAC	8870		MOTOROLA	V60t		NOKIA	X5
MITAC	168RS		MOTOROLA	V60x		O2	Cosmo
MITAC	336BT		MOTOROLA	V66		O2	Pocket PC
MITAC	338 Plus		MOTOROLA	Z10		O2	XDA Argon

MITAC	A201	MOTOROLA	Backflip	O2	XDA Atom
MITAC	A501	MOTOROLA	Bravo	O2	XDA Atom Exec
MITAC	A700	MOTOROLA	Charmer	O2	XDA Atom Life
MITAC	A701	MOTOROLA	Cliq 2	O2	XDA Atom Pure
MITAC	A702	MOTOROLA	Defy	O2	XDA Comet
O2	XDA Cosmo	ORANGE	SPV M5000	QTEK	S310 Pocket
O2	XDA Exec	ORANGE	SPV M600	QUEST	PC6700
O2	XDA Flame	ORANGE	SPV M650	ROVER PC	C6
O2	XDA Graphite	ORANGE	SPV M700	ROVER PC	E5
O2	XDA Guide	ORANGE	SPV Smartphone	ROVER PC	G5
O2	XDA Ignito	ORSiO	G735	ROVER PC	G6
O2	XDA II	ORSiO	GN725	ROVER PC	M5
O2	XDA ii mini	ORSiO	N725 GPS	ROVER PC	N6
O2	XDA iis	ORSiO	P745	ROVER PC	N7
O2	XDA mini S	PALM	Treo 700w	ROVER PC	P6
O2	XDA NEO	PALM	Treo 700wx	ROVER PC	P745
O2	XDA Nova	PALM	Treo 750V	ROVER PC	Q5
O2	XDA Orbit	PALM	Treo 755p	ROVER PC	Q6
O2	XDA Orbit II	PALM	Treo 800w	ROVER PC	R5
O2	SDA Orion	PALM	Tungsten E2	ROVER PC	S5
O2	XDA Phone	PALM	Tungsten T5	ROVER PC	S6
O2	XDA Stealth	PANASONIC	X700	ROVER PC	S7
O2	XDA Serra	PANASONIC	X800	ROVER PC	W5
O2	XDA Stellar	PANTECH	PN820	SAMSUNG	B7320
O2	XDA Terra	PARAGON WIRELESS	HIPI-2200 600 GPS	SAMSUNG	B7330, OmniaPRO B7610
O2	XDA Trion	PHAROS	Phone Traveller	SAMSUNG	OmniaPRO
O2	XDA Zest	PHAROS	GPS 525	SAMSUNG	C6620
O2	XDA Zinc	NAVIGATOR POCKET	PN-3550	SAMSUNG	C3010
O2	Xphone	NAVIGATOR POCKET	PN-3560	SAMSUNG	C3110
O2	Xphone ii	NAVIGATOR POCKET	PN-P201	SAMSUNG	E1310
O2	Xphone iim	NAVIGATOR POCKET	PN-P550 A	SAMSUNG	i520(Symbian)
OKWAP	K728	NAVIGATOR	PN-P550 A	SAMSUNG	i550(Symbian)
OKWAP	K868	PSION TEKLOGIX	Workabout PRO	SAMSUNG	i560(Symbian)
OKWAP	K860	PSION TEKLOGIX	Workabout PRO G2	SAMSUNG	i640
OKWAP	K871	QOOL LABS	QDA Icon	SAMSUNG	i7110(Symbian)
OKWAP	S868	QOOL LABS	QDA Lite	SAMSUNG	i7500(Androi

							d)
OPTICON	H-16B		QOOL LABS	Twins 178		SAMSUNG	i8910
OPTICON	H-19A		QTEK	1010		SAMSUNG	i907
OPTICON	H-19-B		QTEK	2020		SAMSUNG	M7610
OPTICON	PHL-5400		QTEK	2060		SAMSUNG	Propel Pro
OPTICON	PHL-7111		QTEK	7070		SAMSUNG	S3110
OPTICON	PHL-7114		QTEK	8010		SAMSUNG	S3310
OPTICON	PHL-7142		QTEK	8020		SAMSUNG	S5230W
ORANGE	SPV C100		QTEK	8060		SAMSUNG	S5233
ORANGE	SPV C200		QTEK	8080		SAMSUNG	S5600v Blade
ORANGE	SPV C220		QTEK	8100		SAMSUNG	S5603
ORANGE	SPV C700		QTEK	8200		SAMSUNG	S7350
ORANGE	SPV Classic		QTEK	8300		SAMSUNG	SCH-i830
ORANGE	SPV E100		QTEK	8310		SAMSUNG	SCH-M400
ORANGE	SPV E200		QTEK	8500		SAMSUNG	SGH-A257
ORANGE	SPV E600		QTEK	8600		SAMSUNG	SGH-A877
ORANGE	SPV E610		QTEK	9000		SAMSUNG	SGH-A887
ORANGE	SPV E650		QTEK	9090		SAMSUNG	SGH-D300
ORANGE	SPV F600		QTEK	9100		SAMSUNG	SGH-D730(Symbian)
ORANGE	SPV M1000		QTEK	9600		SAMSUNG	SGH-E808
ORANGE	SPV M2000		QTEK	2020i		SAMSUNG	SGH-i250
ORANGE	SPV M2500		QTEK	G100		SAMSUNG	SGH-i300x
ORANGE	SPV M3000		QTEK	S100		SAMSUNG	SGH-i400(Symbian)
ORANGE	SPV M3100		QTEK	S110		SAMSUNG	SGH-i450(Symbian)
ORANGE	SPV M500		QTEK	S200		SAMSUNG	SGH-i718
SAMSUNG	SGH-i750		SONY ERICSSON	T226		T-MOBILE	MDA
SAMSUNG	SGH-i760		SONY ERICSSON	T237		T-MOBILE	MDA Compact
SAMSUNG	SGH-i770		SONY ERICSSON	T290a		T-MOBILE	MDA Compact II
SAMSUNG	SGH-i897		SONY ERICSSON	T616		T-MOBILE	MDA Compact III
SAMSUNG	SGH-i917		SONY ERICSSON	T637		T-MOBILE	MDA II
SAMSUNG	i9000 (Galaxy S 4G)		SONY ERICSSON	W300c		T-MOBILE	MDA III
SAMSUNG	i9100 (Galaxy S 2)		SONY ERICSSON	W550c		T-MOBILE	MDA Mail
SAMSUNG	SGH-L870(Symbian)		SONY ERICSSON	W600		T-MOBILE	MDA Pro
SAMSUNG	SGH-P730		SONY ERICSSON	W600c		T-MOBILE	MDA Pocket PC
SAMSUNG	SGH-T929		SONY ERICSSON	W710c		T-MOBILE	MDA Touch
SAMSUNG	SGH-T589 (Gravity Smart)		SONY ERICSSON	W715a		T-MOBILE	MDA Vario

SAMSUNG	SGH-T759 (Exhibit 4G)
SAMSUNG	SGH-T959
SAMSUNG	SGH-Z600
SHARP	W-ZERO3
SIEMENS	A62
SIEMENS	C6620
SIEMENS	L56
SIEMENS	S56
SIEMENS	S66
SIEMENS	SX45
SIEMENS	SX45i
SIEMENS	SX56
SIEMENS	SX66
SOCKET MOBILE	SoMo 650
SONY ERICSSON	C901 GreenHeart
SONY ERICSSON	G900
SONY ERICSSON	J300a
SONY ERICSSON	J300c
SONY ERICSSON	K300a
SONY ERICSSON	K300c
SONY ERICSSON	K310a
SONY ERICSSON	K310c
SONY ERICSSON	K500c
SONY ERICSSON	K506c
SONY ERICSSON	K510a
SONY ERICSSON	K510c
SONY ERICSSON	K610im
SONY	K700c
SONY ERICSSON	W800c
SONY ERICSSON	W810c
SONY ERICSSON	W830
SONY ERICSSON	W880c
SONY ERICSSON	W888c
SONY ERICSSON	W900c
SONY ERICSSON	Xperia X10
SONY ERICSSON	Xperia X10 mini
SONY ERICSSON	Xperia X8
SONY ERICSSON	Z502a
SONY ERICSSON	Z520c
SONY ERICSSON	Z525a
SONY ERICSSON	Z525i
SONY ERICSSON	Z530c
SONY ERICSSON	Z550a
SONY ERICSSON	Z550c
SONY ERICSSON	Z710c
SONY ERICSSON	Z712a
SPRINT	Ace
SPRINT	PPC-6600
SPRINT	PPC-6601
SPRINT	PPC-6700
SPRINT	PPC-6800
SPRINT	XV6600
TDS	Nomad 800B
TDS	Nomad 800L
TDS	Nomad 800LC
TDS	Nomad
T-MOBILE	MDA Vario III
T-MOBILE	myTouch 3G slide
T-MOBILE	myTouch 4G
T-MOBILE	SDA
T-MOBILE	SDA II
T-MOBILE	SDA Music
T-MOBILE	Shadow 2
T-MOBILE	Sidekick 4G
T-MOBILE	Wing
T-MOBILE	h6315
TOSHIBA	G900
TOSHIBA	TG01
UBIQUIO	601
UBIQUIO	503G
VELOCITY MOBILE	103
VELOCITY MOBILE	111
VERIZON WIRELESS	PN-820
VERIZON WIRELESS	XV6600
VERIZON WIRELESS	XV6800
VODAFONE	v1210
VODAFONE	v1240
VODAFONE	v1415
VODAFONE	v1605
VODAFONE	v1620
VODAFONE	v1640
VODAFONE	VDA
VODAFONE	VDA Compact
VODAFONE	GPS
VODAFONE	VDA

ERICSSON				800LE			Compact IV
SONY				Ranger			
ERICSSON	K750c		TDS	300X		VODAFONE	VDA II
SONY				Ranger			
ERICSSON	K758c		TDS	500X		VODAFONE	VDA V
SONY							VPA
ERICSSON	K790a		T-MOBILE	Ameo		VODAFONE	Compact
SONY							VPA II
ERICSSON	K790c		T-MOBILE	Comet		VODAFONE	Compact
SONY							
ERICSSON	K790i		T-MOBILE	Dash		VODAFONE	VPA III
SONY							
ERICSSON	M608i		T-MOBILE	G2		VOXTEL	W210
SONY							
ERICSSON	S700c		T-MOBILE	G2x		VOXTEL	W420
						VOXTEL	W520
						VOXTEL	W740

Handsets – Other

Other handsets can be tested on CellDEK, however the amount of data extracted has not been assessed and all information should be treated as a minimum data extraction.

GPS Device – Verified CellDEK Support

The following GPS Devices have been tested on CellDEK using the standard verification procedures of Logicube. The results below display the data sets that can be extracted from CellDEK for the specific handset. There may be additional data sets available from handsets and these will require further examination.

Key:

Phone ID		Home		Routes	

Contacts		Favourites	★	Routes with Waypoints	
Call Logs		Recent Destinations		Track Logs	
Call Logs w timestamp		Location History		Track Logs with Waypoints	
SMS					
SMS w timestamp					

	Manufacturer	Model	GPS ID	Contacts	Call Logs	Incoming SMS	Outgoing SMS	Home	Favourite	Recent Destinations	Location History	Routes	Tracks	
1	ACER	P610							★					Apr 2009
2	GARMIN	nuvi 250W							★					Oct 2008
3	GARMIN	nuvi 300							★					Oct 2008
4	GARMIN	nuvi 760							★					Apr 2009
5	HP	iPAQ 314							★					Jan 2009
6	NAVIGON	7210							★					Jul 2009
7	NAVMAN	S50 3D							★					Jul 2009
8	NAVMAN	S70							★					Jul 2009
9	NAVMAN	S70 3D							★					Jul 2009
10	NDRIVE	S300							★					Apr 2009
11	TOMTOM	G0 720							★					Jul 2008
12	TOMTOM	ONE							★					Jul 2008
13	**TOMTOM**	**ONE XL**							★					**Jan 2010**
14	**VIAMICHELIN**	**X970**							★					**Jan 2010**

GPS Device – Expected Support

The following GPS Devices have not been verified on CellDEK however their appearance or technology indicates that data extraction will be possible. It is recommended that all data is treated as a minimum extraction as there may be additional data sets available that require further examination.

Data can be extracted from these handsets as normal by selecting either Mass Storage Device or Windows PDA from the GPS Device list.

GARMIN nuvi: 200, 200W, 205, 205W, 250, 255W, 260, 260W, 265T, 265WT, 270, 275T, 350, 360, 370, 500, 550, 600, 610, 650, 660, 670, 680, 750, 755T, 765T, 770, 775T, 780, 785T, 850, 855, 855T, 880, 885T, 1200, 1250, 1260T, 1300, 1350T, 1370T, 1390T, 1490T, 5000

NAVIGON: 1200, 1210, 2100 max, 2110 max, 2150 max, 2200, 2310, 3300 max, 3310 max, 4310 max, 4350 max, 7310, 8110, 8310

NAVMAN: S30, S30 3D, S50, S80, S90i

NDRIVE: G280R, G280S, G400, G800R, S400, Touch, Touch XL

TOMTOM: GO, GO 300, GO 500, GO 510, GO 520, GO 530, GO 540 LIVE, GO 700, GO 710, GO 730, GO 740 LIVE, GO 910, GO 920, GO 940 LIVE, XL

Additional Cable Support for PDAs

The set of 5 cable tips can be purchased from **http://www.gomadic.com/celldek.html** This will enable the User to extract data from the following 150 PDAs:

PDA Cable Tip 1

DELL: Axim X5

PDA Cable Tip 2

CINGULAR iPAQ: h6320, h6325

COMPAQ iPAQ: 3800, 3830, 3835, 3850, 3870, 3875, 3900, 3950, 3955, 3970, 3975

HP iPAQ: h1900, h1910, h1915, h1920, h1930, h1935, h1937, h1940, h1945, h2200, h2210, h2215, h3800, h3830, h3835, h3850, h3870, h3875, h3900, h3950, h3955, h3970, h3975, h4140, h4150, h4350, h4355, h5100, h5150, h5155, h5400, h5450, h5455, h5500, h5550, h5555, h6315, h6320, h6325, h6340, h6365, hw6500, hw6510, hw6515a, hw6515, hw6710, hw6715, hw6910, hw6915, hw6925, hw6940, hw6965, hx2000-Series, hx2090, hx2110, hx2190, hx2410, hx2415, hx2490, hx2495, hx2700-Series, hx2750, hx2790, hx2795, hx4700, hx4705, hx4710, rx1700-Series, rx1950, rx1955, rx3100, rx3110, rx3115, rx3400, rx3415, rx3417, rx3700, rx3710, rx3715, rz1700, rz1710, rz1715

MOTOROLA: C250

T-MOBILE iPAQ: h6315

PDA Cable Tip 8

AT&T: SX56, SX66

AUDIOVOX: 5050, 6601, XV6600

CINGULAR: SX66

HTC: Blue Angel, Canary, Falcon, Harrier, Himalaya, Tanager, Voyager, Wallaby

I-MATE: PDA2k, PPC Phone, Smartphone 1, Smartphone 2

O2: XDA IIi, XDA IIs, XDA-II, XDA PPC Phone, XPhone I

ORANGE: SPV-E100, SPV-E200, SPV-M1000, SPV-M2000, SPV-Smartphone

QTEK: 1010, 2020, 7070, 8060, 8080, 9090

SIEMENS: SX56, SX66

SPRINT: 6601, XV6600

T-MOBILE: MDA, MDA II, MDA III, PPC Edition

VERIZON: XV6600

PDA Cable Tip 11

DELL: Axim X30, Axim X3i, Axim X3, Pocket DJ 20GB, Pocket DJ 30GB

PDA Cable Tip 13

DELL: Axim X50v, Axim X50, Axim X51v, Axim X51

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9. CellDEK Software License

CellDEK Software License - EU

EU CUSTOMER LICENCE

BETWEEN LOGICUBE, INC. (the **"Licensor"**); and the End User (**"You"**).

RECITAL

(A) The Licensor is engaged in creating and is the owner of the Software (as hereinafter defined).

(B) The Licensor has agreed to grant You a non-exclusive licence to use the Software (as hereinafter defined) upon the terms and conditions of this Agreement.

(C) The Licensor has provided You with a copy of the End User Software License (as hereinafter defined) which grants You a license to use the Microsoft and related software contained within the PC embedded in the CellDEK device.

OPERATIVE PROVISIONS

1 **DEFINITIONS AND INTERPRETATION**

1.1 In this Agreement including the Schedule hereto the following words shall have the following meanings:

"Agreement"
means this agreement, including its Schedule;

"Business Day"
means any day other than Saturdays, Sundays or public holidays in England;

"Commencement Date"
means the date of the Contract;

"Contract"
means the contract between the Parties for the purchase of the Goods in which the Software is embedded;

"Customer"
means a third party who is licensed by the Licensor to use the Software when it is installed into the Goods;

"End User License"
means the paper license provided with the CellDEK device for software within the embedded PC;

"Executable Code"
means the fully compiled version of a software programme that can be executed by a computer and used by a Customer without further compilation;

"Force Majeure"
means the following:

(a) Acts of God;

(b) outbreak of hostilities, riot, civil disturbance, acts of terrorism;

(c) an act of any government or authority (including refusal or revocation of any licence or consent);

(d) fire, explosion, flood, fog or bad weather;

(e) power failure, failure of telecommunication lines, failure or breakdown of plant, machinery or vehicles;

(f) default of suppliers or sub-contractors;

(g) theft, malicious damage, strike, lock-out or industrial action of any kind; and

(h) any cause or circumstance whatsoever beyond the reasonable control of a Party;

"Goods"

means CellDEK mobile phone and PDA data extraction kit;

"Intellectual Property Rights"

means all inventions (whether patentable or not), patents, utility models, designs (both registered and unregistered and including rights in semiconductor topographies), copyright, database rights, trade and service marks (both registered and unregistered) together with all applications for, right to the grant of and extensions of the same, and all other intellectual and industrial property including but not limited to all similar or analogous rights throughout the world, in each case for the full term of the relevant right;

"Licensed Software Materials"

means the Software, the Software Documentation, the Periodic New Releases, any Releases and any fixes created and which are provided to You pursuant to the Contract;

"Periodic New Releases"

means a release of the Software that is made available to all Customers and that corrects errors or changes or improves the Software's utility, efficiency or capability and associated cable upgrade specifications and which is provided to You pursuant to the Contract;

"Party"

means each of the persons identified as parties to this Agreement and jointly "**the Parties**";

"Release"

means the most recent standard version of the Software made available to all Customers and which is provided to You pursuant to the Contract;

"Software"

means the software programs in Executable Code only and which are listed in the Schedule;

"Software Documentation"

means the instruction manuals, user guides and other information and any modifications or additions thereto to be made available by the Licensor at its discretion to You in either printed or machine readable form;

"Software Specifications"

means the technical specifications from time to time published by the Licensor in respect of the Software; and

"Use"

means the copying or transmission of the Software or (where in machine readable form) the Software Documentation for use in accordance with the instructions contained in the Software or (as the case may be) the Software Documentation.

1.2 In this Agreement unless the context requires otherwise:

1.2.1 the singular includes the plural and vice versa and any gender includes any other gender;

1.2.2 references to Clauses and Schedules are to Clauses of, and schedules to, this Agreement;

1.2.3 any reference to an enactment, order, regulation or other similar instrument includes a reference to that enactment, order, regulation or instrument as from time to time amended, extended or re-enacted;

1.2.4 references to persons include bodies corporate, unincorporated associations and partnerships, and any reference to the Parties include their respective successors, permitted assigns and personal representatives; and

1.2.5 any reference to "company", "subsidiary" and "holding company"

shall be as defined in section 736 of the Companies Act 1985.

1.3 The headings of this Agreement are for ease of reference only and shall not affect its interpretation or construction.

1.4 In the event of a conflict between any of the terms of this Agreement including its Schedules and appendices, the conflict shall be resolved according to the following order of priority:

1.4.1 the Clauses of this Agreement;

1.4.2 the Schedules of this Agreement; and

1.4.3 the Recitals.

2 **GRANT OF LICENCE**

2.1 The Licensor hereby grants to You a non-exclusive non-transferable licence to Use the Software (and where appropriate the Software Documentation, any Periodic New Releases and any Releases) and to possess and refer to the Software Documentation (the "**Licence**") in accordance with and subject to the terms and conditions of this Agreement.

2.2 The Licensor has provided a copy of the the End User License to You. By using the Software You are granted a license to the software in PC embedded in the CellDEK device and You agree to be bound by the terms of the End User License agreement.

3 **TERM**

This Agreement shall commence on the Commencement Date and shall continue in force unless or until terminated by either Party in accordance with the provisions of Clause 10.

4 **PROPERTY AND CONFIDENTIALITY IN THE LICENSED SOFTWARE MATERIALS**

4.1 The Licensed Software Materials contain Confidential Information (as defined in Clause 9.1 below) of the Licensor and all Intellectual Property Rights in the Licensed Software Materials are the exclusive property of or are licensed to the Licensor.

4.2 You shall not:

4.2.1 save as provided in Clause 5 below copy the whole or any part of the Licensed Software Materials;

4.2.2 save as required to be permitted by law modify, merge or combine the whole or any part of the Licensed Software Materials with any other software or documentation;

4.2.3 remove or tamper with any proprietary notice contained in the Licensed Software Materials;

4.2.4 assign, license, transfer, sell, lease, rent, charge or otherwise deal in or encumber the Licensed Software Materials nor use on behalf of or make available the same to any third party; or

4.2.5 save as required to be permitted by law reverse compile the whole or any part of the Licensed Software Materials from object code into source code.

4.3 You shall:

4.3.1 keep confidential the Licensed Software Materials and limit access to the same to those of its employees, agents and sub-contractors who either have a need to know or who are engaged in the Use of the Software (including where appropriate the Software Documentation);

4.3.2 reproduce on any copy of the Software or Licensed Software Materials the Licensor's copyright and trade mark notices;

4.3.3 maintain an up-to-date record of the number of copies of the Licensed Software Materials and their location and upon request forthwith produce such record to the Licensor;

4.3.4 only use the Software in accordance with the number of copies licensed to You (and as set out in the Schedule);

4.3.5 without prejudice to the foregoing take all such other steps as shall from time to time be necessary to protect the Confidential Information (as defined in Clause 9.1 below) and Intellectual Property Rights of the Licensor in the Licensed Software Materials;

4.3.6 in its Use of the Licensed Software Materials comply with all

present and future statutes, laws, ordinances, regulations and/or guidelines of any applicable jurisdiction or agency;

4.3.7 ensure that its personnel are, at all times, educated and trained in the proper Use and operation of the Licensed Software Materials;

4.3.8 ensure that the Licensed Software Materials are used in accordance with any and all applicable Software Documentations; and

4.3.9 indemnify and hold harmless the Licensor from and against all claims, damages, losses, judgments, fees, expenses and costs, including legal costs, arising out of or resulting from Your acts, negligence or failure to comply with this Clause 4 or any other provision of this Agreement.

4.4 You shall inform all relevant employees, agents and sub-contractors that the Licensed Software Materials constitute Confidential Information (as defined below) of the Licensor and that all Intellectual Property Rights therein are the property of or are licensed to the Licensor and the You shall take all such steps as shall be necessary to ensure compliance by its employees agents and sub-contractors with the provisions of this Clause 4.

5 **COPYING OF THE LICENSED SOFTWARE MATERIALS**

5.1 You shall be entitled to make one back-up copy of the Software. Any such copy shall in all respects be subject to the terms and conditions of this Agreement and shall be deemed to form part of the Software.

5.2 You shall not be entitled to copy in whole or in part the Software Documentation.

6 **WARRANTY**

6.1 Subject to the exceptions set out in Clause 6.3 below and the limitations upon its liability in Clause 7 below the Licensor warrants that:

6.1.1 it has the right, power and authority to license the Licensed Software Materials upon the terms and conditions of this Agreement; and

6.1.2 the Software will for a period of twelve (12) months from the date it is delivered to You conform to the Software Specifications.

6.2 You shall give notice to the Licensor as soon as it is reasonably able upon becoming aware of a breach of warranty. If no such notice is given within 30 days of You becoming aware of a breach of warranty, the Licensor shall not be liable for such breach of warranty.

6.3 The Licensor shall have no liability to remedy a breach of warranty where such breach arises:

6.3.1 in respect of Software that is not properly licensed pursuant to Clause 2 of this Agreement;

6.3.2 in circumstances where You is not in conformity with the minimum technical requirements and prerequisites set out in the Software Specifications; or

6.3.3 as a result of:

a) the improper use, operation or neglect of either the Software or the Goods upon which the Software is installed or used;

b) the modification of the Software or its merger (in whole or in part) with any other software;

c) the failure by You to implement recommendations in respect of or solutions to faults previously advised by the Licensor;

d) any repair, adjustment. alteration or modification of the Software by any person other than the Licensor without the Licensor's prior consent;

e) failure by You adequately to back-up the Software;

f) any breach by You of any of its obligations under any maintenance agreement in respect of the Goods upon which the Software is installed or used;

g) any failure, accident, neglect or misuse of equipment, software or media not supplied by the Licensor;

h) Your failure to install and Use in substitution for the previous release any New Release of the Software within ninety (90) days of receipt of the same; or

i) the use of the Software for a purpose for which they were not designed.

6.4 Without prejudice to the foregoing the Licensor does not warrant that the Use of the Software will meet Your requirements or that the operation of the Software (including where in machine-readable form the Software Documentation) will be uninterrupted or error free.

6.5 Nothing in this Agreement shall obligate the Licensor to improve or otherwise support the Licensed Software Materials.

6.6 Subject to the foregoing all conditions, warranties, terms, representations (unless fraudulent) and undertakings express or implied, statutory or otherwise in respect of the Licensed Software Materials are hereby excluded to the fullest extent permissible by law.

7 **LIMITATION OF LIABILITY**

7.1 Where any sustainable claim is made by You in respect of any breach of the warranties given by the Licensor pursuant to clause 6 above, the Licensor shall be entitled at its option either to replace or repair the Software free of charge. This shall be Your sole and exclusive remedy and the Licensor shall have no further liability to You for breach of such warranties.

7.2 Subject to Clause 7.1 above and without prejudice to Clause 7.4, and except as otherwise provided in this Agreement, the total liability of the Licensor in contract, tort (including negligence or breach of statutory duty) or otherwise arising by reason of or in connection with this Agreement shall be limited in aggregate to the total price paid and payable by You for the Goods under the Contract.

7.3 Without prejudice to Clause 7.4, in no event shall the Licensor be liable to You for loss of revenue, loss of anticipated savings, loss of profits, loss of data, damage to goodwill, loss of reputation or for any type of indirect, economic or consequential loss or damage whatsoever or howsoever caused.

7.4 Neither party excludes or limits liability to the other for death or personal injury caused by its negligence or for fraud.

7.5 Save as expressly stated in this Agreement, all conditions, warranties and representations (unless fraudulent) expressed or implied by statute, common law or otherwise in relation to the Licensed Software Materials are hereby excluded to the fullest extent permissible by law.

8 **RISK IN THE LICENSED SOFTWARE MATERIALS**

Risk in the Licensed Software Materials will pass to You upon the date of delivery of the Licensed Software Materials to You. If subsequently the Licensed Software Materials are (in whole or in part) destroyed, damaged or lost the Licensor will upon written request replace the same subject to You paying its then prevailing charges.

9 **CONFIDENTIALITY**

9.1 Neither Party shall use, copy, adapt, alter, disclose or part with possession of any information or data of the other Party which is disclosed or otherwise comes into its possession directly or indirectly as a result of this Agreement and which is of a confidential nature ("**Confidential Information**") without the prior written consent of the disclosing Party except as strictly necessary to perform its obligations or exercise its rights under this Agreement.

9.2 The receiving Party undertakes not to disclose any Confidential Information of the disclosing Party to any third party other than employees, professional advisors and approved sub-contractors of the receiving Party on a "need to know" basis only and to whom disclosure is necessary for the proper performance of their duties under this Agreement.

9.3 The foregoing obligations shall not apply to Confidential Information that:

9.3.1 was known to the receiving Party prior to receipt from the

disclosing Party; or

9.3.2 is received from a third party without breach of any other confidentiality arrangements; or

9.3.3 is or becomes public knowledge other than by breach of this Clause or is independently developed by or for the receiving Party; or

9.3.4 is required to be disclosed by any applicable law or by order of any Court of competent jurisdiction or any government body, agency or regulatory body, provided that the receiving Party shall use all reasonable endeavours to give the other Party not less than two business days' written notice of the disclosure.

9.4 The Parties shall ensure that their respective employees, agents and sub-contractors comply with the provisions of this Clause and are bound by terms and conditions of use and non-disclosure at least as onerous as those contained in this Clause.

9.5 The obligations in this Clause shall continue in force notwithstanding termination of this Agreement for any reason.

9.6 If this Agreement is terminated, the receiving Party shall return or destroy at the request of the disclosing Party all Confidential Information of the disclosing Party.

10 **TERMINATION**

10.1 This Agreement may be terminated:

10.1.1 by either Party upon giving not less than sixty (60) days written notice to the other;

10.1.2 forthwith by either Party upon giving written notice to the other if the other commits any material breach of this Agreement and which (in the case of a breach capable of remedy) shall not have been remedied within thirty (30) days of a written request to remedy the same (and non-payments of sums when due to the Licensor shall be a material breach);

10.1.3 forthwith by either Party upon giving written notice to the other Party if the other Party makes or proposes to make any arrangement or composition with its creditors or has a receiver, administrative receiver, administrator, liquidator, manager or similar officer appointed in respect of all or any part of its assets or passes a resolution for winding-up (otherwise than for the purpose of a solvent amalgamation or reconstruction where the resulting entity assumes all of the obligations of the relevant party under this Agreement), or (in the case of an individual) commits any act of bankruptcy or dies, or (in the case of a partnership) is dissolved, or undergoes or suffers any analogous acts or proceedings under any foreign law;

10.1.4 if the other Party shall commit any act of bankruptcy, shall have a receiving order made against it, shall make or negotiate for any composition or arrangement with or assignment for the benefit of its creditors or if the other party being a body corporate, shall present a petition or have a petition presented by a creditor for its winding up or shall enter into any liquidation (other than for the purpose of reconstruction or amalgamation), shall call any meeting of its creditors, shall have a receiver of all or any of its undertakings or assets appointed, shall be deemed by virtue of section 123 of the Insolvency Act 1986 to be unable to pay its debts, or shall cease to carry on business; or

10.1.5 forthwith by either Party upon giving written notice to the other if the other shall cease to carry on its business or substantially the whole of its business.

10.2 Any termination of this Agreement (however occasioned) shall not operate so as to affect any accrued rights or liabilities of either Party.

10.3 Within fourteen (14) days of the termination of this Agreement (howsoever and by whomsoever occasioned) You shall return or destroy (as the Licensor shall instruct) all copies of the Licensed Software Materials in its possession and a duly authorised officer of You shall

certify in writing to the Licensor that You has complied with such obligation.

11 **FORCE MAJEURE**

11.1 Neither Party shall be liable to the other Party for any delay or non-performance of its obligations under this Agreement to the extent that its performance is interrupted or prevented by Force Majeure.

11.2 Such delay or failure shall not constitute a breach of this Agreement and the time for performance shall be extended by a period equivalent to that during which performance is so prevented provided that if such delay or failure persists for sixty (60) days or more, the Party not affected may, at its option and if it is reasonable for it to do so, terminate this Agreement by giving fourteen (14) days written notice to the other Party.

12 **WAIVER**

Any failure or delay on the part of either Party to exercise any power or right under this Agreement shall not operate as a waiver of it, nor shall any single or partial exercise of any such right or power preclude any other or further exercise of the right or power. Any of the rights and remedies of either Party under this Agreement may at any time be enforced separately or concurrently with any other rights and remedies, whether under this Agreement or arising by operation of law with the effect that the rights and remedies are cumulative and not exclusive of each other.

13 **NOTICES**

13.1 Any notices required to be given under this Agreement shall be in writing and delivered personally or by first class post or transmitted by facsimile to the Parties as set out below:

13.1.1 The Licensor:

Address: Logicube, Inc.
19755 Nordhoff Place
Chatsworth, CA 91311 USA

For attention of: COO

13.1.2 You:

to the address or facsimile number that You provided for Your purchase of the Software.

13.2 Any notice served by:

13.2.1 personal delivery, shall be deemed served at the time of delivery;

13.2.2 first class post, shall be deemed served at the start of the fifth business day after posting; and

13.2.3 facsimile, shall be deemed served on the day of transmission (or the next following business day if transmitted outside the Party's normal working hours) provided that the sender shall have received a transmission report indicating that all the pages of the notice have been transmitted to the correct facsimile number.

13.3 Any Party may change any details of its address or facsimile number by notice in the manner described above.

14 **SEVERABILITY**

If any term or provision of this Agreement or its application to any Party or circumstances shall, to any extent, be invalid or unenforceable, the remainder of this Agreement or the application of the term or provision to any other Party or circumstances, other than those as to which it is already invalid or unenforceable, shall not be affected, and each term and provision of this Agreement shall be valid and enforceable to the fullest extent permitted by law. The Parties shall negotiate in good faith to replace any invalid or unenforceable provisions by substitute provisions.

15 **ENTIRE AGREEMENT**

15.1 This Agreement and the Contract constitute the entire agreement

between the Parties with respect to the subject matter hereof and supersede and invalidate all prior oral or written communications, understandings, representations or warranties relating to the subject matter hereof.

15.2 Each Party warrants to the other that it has not relied on any such communications, understandings, representations or warranties in entering into this Agreement.

15.3 Notwithstanding anything contained herein to the contrary, the provisions of Clauses 4, 7, 9 and any other Clauses which are intended to survive termination shall survive termination of the Agreement and shall continue in full force and effect thereafter.

16 **ASSIGNMENT/SUB-CONTRACTING/AGENCY**

16.1 You shall not be entitled to assign, sub-contract or otherwise transfer your rights or obligations under this Agreement whether in whole or in part without the Licensor's prior written consent.

16.2 The Licensor shall be entitled to assign its rights hereunder (in whole or in part) to any person, partnership or company.

16.3 This Agreement shall be binding upon and inure for the benefit of the Parties and their respective permitted successors and assigns.

17 **THIRD PARTY RIGHTS**

A person who is not a Party to this Agreement has no rights under the Contracts (Rights of Third Parties) Act 1999 to enforce any term of this Agreement but this does not affect any right or remedy of a third party which exists or is available apart from that Act.

18 **PUBLICITY**

The Parties agree to keep confidential the terms of this Agreement, and neither Party shall make any announcement in relation to this Agreement or otherwise publicise its existence or its contents or use or refer to the name, trade mark or trade name of the other Party in any disclosure without the prior written consent of the other Party such consent not to be unreasonably withheld or delayed. A Party shall be entitled to withhold such consent and shall be under no obligation to provide any explanation for such action.

19 **AMENDMENTS**

No amendment to this Agreement whether oral or written shall be binding on either Party unless in writing and signed on behalf of the Parties.

20 **GOVERNING LAW AND JURISDICTION**

20.1 This Agreement shall be governed by and construed in accordance with English law.

20.2 It is irrevocably agreed that the English courts shall have non-exclusive jurisdiction as regards any claim or matter arising out of or in connection with this Agreement.

21 **NO PARTNERSHIP/AGENCY**

Nothing in this Agreement is intended to or shall operate to create a partnership or joint venture of any kind between the Parties, or to authorise either Party to act as agent for the other.

22 **THIRD PARTY SOFTWARE**

22.1 CellDEK software uses libraries and other components from the LibUSB-Win32 project.

The library is distributed under the terms of the GNU Lesser General Public License (LGPL).

The other components are distributed under the terms of the GNU General Public License (GPL).

These licenses are available to read at the LibUSB-Win32 project home-page www.libusb-win32.sourceforge.net.

22.2.1 The End User License is provided as a paper license along with the CellDEK device. By using the Software You agree to be bound by the terms of the End User Liclense Agreement.

Additional copies of this license are also available from Logicube.

CellDEK Software License - US

THIS AGREEMENT shall be binding on installation of the Software and is by and between **LOGICUBE, INC.** ("Licensor") and the End User ("You").

1. Grant of License. So long as You shall be in compliance with the terms hereof, You shall have a limited, perpetual, non-exclusive and non-transferable license ("License") to use the Software solely in the course of lawfully operating the device with which the Software is integrated, and for no other purpose. You are also granted a license to use the Microsoft and related software contained within the PC embedded in the CellDEK device and by using such software You agree to be bound by the terms of the End User License agreement, a copy of which is provided to You with the device. Additional copies of the End User License are also available from Logicube.

2. Title. No title or ownership in the Software is transferred to You. Title to all applicable rights in patents, copyrights, trademarks and trade secrets in the Software shall remain in Licensor. Software licensed hereunder is property of Licensor, and You shall be bound by and observe such nature thereof as herein provided. You shall take appropriate action by instruction to and agreement with its employees, agents, consultants or any other end users who are permitted access to the Software to fulfill its obligations hereunder. Without limiting the foregoing, You shall ensure that any end user license agreement provided with the Software is brought to the reasonable attention of all such end users. You shall not provide, or otherwise make available, the Software or copies thereof to any third party. All ownership rights to any developments or improvements to the Software made by You shall belong solely to Licensor.

3. Copying.

(a) You shall be entitled to make one copy the Software for back-up and archival purposes. You shall include in each such copy the Licensor's copyright notice(s) and trademark(s).

(b) In no event shall You be entitled to remove or tamper with any such proprietary notices contained in the Software.

(c) Software shall not be reverse compiled, disassembled, reverse assembled, or otherwise reverse engineered. All rights in or to the Software not expressly granted to You under

this Agreement are retained by Licensor.

4. Warranty.

(a) Subsection 4(b) hereof provides Licensor's twelve month limited warranty for the Software.

(b) Licensor warrants that for a period of twelve (12) months from installation of the Software, the Software will perform in accordance with the Software documentation. In the event the Software does not perform in accordance with such documentation, then during such twelve month period, Licensor shall at its option: (i) correct any variance between the Software performance and its documentation; or (ii) replace the Software media. The foregoing shall be Your sole and exclusive remedy with respect to the Software or otherwise hereunder. EXCEPT AS WARRANTED BY THE PRECEDING THREE SENTENCES, THE SOFTWARE IS LICENSED AS IS, AND NO WARRANTY OF ANY KIND, EXPRESS, IMPLIED OR STATUTORY, WHETHER IN RELATION TO MERCHANTABILITY, HIDDEN DEFECTS, FITNESS FOR PARTICULAR PURPOSE, COURSE OF PERFORMANCE, COURSE OF DEALING, USAGE OF TRADE, NONINFRINGEMENT, THAT THE SOFTWARE'S OPERATION SHALL BE ERROR FREE OR UNINTERRUPTED, OR OTHERWISE IS GIVEN BY LICENSOR TO YOU OR ANY OTHER PARTY. LICENSOR SHALL NOT UNDER ANY CIRCUMSTANCES BE RESPONSIBLE FOR ANY LOSSES OR DAMAGES, DIRECT, INDIRECT, SPECIAL, ORDINARY, EXEMPLARY, CONSEQUENTIAL OR OTHERWISE (INCLUDING, BUT NOT LIMITED TO, LOSS OF DATA, LOSS OF REVENUE, PROFIT OR USE OR COST OF CAPITAL OR OF SUBSTITUTE USE OF PERFORMANCE), ARISING OUT OF OR RELATED IN ANY WAY TO THE TRANSACTIONS CONTEMPLATED HEREUNDER, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. UNDER NO CIRCUMSTANCES SHALL LICENSOR'S TOTAL LIABILITY OF ALL KINDS ARISING OUT OF OR RELATED TO THIS AGREEMENT (INCLUDING BUT NOT LIMITED TO ANY WARRANTY OR SUPPORT-RELATED CLAIMS HEREUNDER), REGARDLESS OF WHETHER ANY ACTION OR CLAIM IS BASED ON CONTRACT, STRICT LIABILITY, TORT OR OTHERWISE, EXCEED THE TOTAL AMOUNT PAID BY YOU FOR THE DEVICE WITH WHICH THE SOFTWARE IS PROVIDED (DETERMINED AS OF THE DATE OF ANY FINAL JUDGMENT IN SUCH ACTION).

(c) This limited warranty shall be valid and remain in effect only if: (i) the Software is used

and maintained by You as directed by all applicable documentation; (ii) You promptly notify Licensor in writing of the claim and is able to reproduce it; (iv) the Software has not in any way been modified and You have not installed any other hardware or software affecting the Software; (v) the claim is unrelated to the failure by You to follow the most current instructions issued by Licensor or its authorized reseller; (vi) the claim is unrelated to the negligence, accident or act of You or any third party; (vii) You provide reasonable access to the Software; (viii) there has been no operation of the Software under conditions more severe than those for which the Software was designed; (ix) the claim is unrelated to force majeure; (x) the claim is unrelated to operator error or to any software, firmware, peripheral or communication device; and (xi) where authorized Licensor updates are provided to You, the Software incorporates all such updates within ninety (90) days of each update being provided or otherwise made available. In the event it is determined that any warranty claim reported by You falls within any of the foregoing exceptions, You shall pay for services at then current rates and charges.

(d) Nothing herein shall obligate Licensor or its authorized reseller to improve or otherwise support any Software licensed hereunder. Without prejudice to the foregoing, all support, enhancements, modifications and upgrades delivered to You, if any, shall be subject to the same protections, restrictions, limited warranty, and limitations on copying and tampering as set forth elsewhere herein.

5. Component Items. In the event that Licensor or its authorized reseller shall deliver to You any individual components apart from the Software specifically licensed hereunder, You shall not use or attempt to use any such component outside or independent of the parameter of this License, and each such component shall be subject to the same rules and restrictions binding on You to which the Software is subject, whether under this Agreement or otherwise.

6. Breach. In the event that either party hereto should breach any of the material terms and conditions of this Agreement, the aggrieved party shall notify the other party. The offending party shall thereafter have 30 days to correct the identified deficiency. In the event such deficiency is not rectified to the satisfaction of the aggrieved party, then the aggrieved party shall be entitled to declare this Agreement null, void and of no further force and effect, and all

rights hereunder, including the License granted hereunder, shall be cancelled. In the event of the expiration or termination hereof for any reason (a) You shall continue to observe the limitations and restrictions set forth in Sections 3(b) and (c), 4, 5-7 and 11 hereof, and (b) immediately return or destroy the Software and all copies thereof as directed by Licensor or its authorized reseller and, if requested by Licensor or its authorized reseller, certify in writing as to the destruction or return of the Software and all copies thereof.

7. Confidentiality. You acknowledge and understand that the Software involves highly confidential and trade secret information that belongs to Licensor ("Confidential Information"). The Confidential Information shall be maintained in absolute confidence by You, not be used other than for the purposes hereof and not be disclosed by You, except as may be permitted under this Agreement, to anyone, without the prior written permission of Licensor. All Confidential Information coming into Your possession shall be marked by You as such.

8. Use. (a) You shall be solely responsible for the design, repair and configuration of Your equipment, machinery, systems and/or products, except where specified in another agreement between the parties hereto. You assume all rights and liability for results obtained by the use or implementation of the Software, whether such results are used singly or in combination with other software or products. You agree that Licensor shall have no liability to You or to any third party for any ordinary, special, indirect, consequential or other damages or losses that might arise directly or indirectly by reason of Your use of the Software. You shall be responsible for use of all hardware, including but not limited to operating procedures, audit controls, accuracy and security of input and output data, restart and recovery routines and other procedures necessary for Your intended use of hardware. You shall maintain back-up data necessary to replace Your critical data in the event of loss of or damage to such data from any cause. Regardless of the cause of loss of Your data, Licensor shall not in any way be liable therefor.

(b) In Your use of the Software You shall comply with all present and future statutes, laws, ordinances, regulations and/or guidelines of any applicable jurisdiction or agency. You shall ensure that its personnel are, at all times, educated and trained in the proper use and operation of the Software and that the Software is used in accordance with any and all

applicable manuals, documentation, and instructions. You shall indemnify and hold Licensor harmless from and against all claims, damages, losses, judgments, fees, expenses and costs, including attorneys' fees, arising out of or resulting from Your acts, negligence or failure to comply with this or any other provision of this Agreement.

9. Delay in Performance. Neither party shall be liable for failure or delay in the performance of any of its obligations under this Agreement, except obligations for the payment of money, if such delay or failure is caused by circumstances of force majeure that are beyond the control of the party affected. Notwithstanding the foregoing, in the event that any delay or failure identified in this Section 9 continues for sixty (60) consecutive days, the party adversely affected by such delay may cancel this Agreement and the License granted hereunder upon written notice to the other party.

10. Term. This Agreement, unless terminated pursuant to other applicable provisions hereof, shall commence on the date the Software is purchased and shall be perpetual, unless terminated in accordance with this Agreement.

11. Miscellaneous.

(a) This Agreement shall be governed by and interpreted in accordance with the substantive (and not conflicts) laws of California. Other than for collection and equitable actions against You, to the extent legal actions are commenced by or name Licensor, each party hereto: (i) submits to the exclusive general jurisdiction of the State and Federal Courts in the State of Ohio, and any **appellate courts** from any decision thereof, in any legal action or proceeding relating to this Agreement; (ii) consents that any such action or proceeding may be brought in such courts; and (iii) waives any objection that he, she or it may have to the venue of any such action or proceeding in any such court or that such action or proceeding was brought in an inconvenient court and agrees not to plead or claim the same. Any action arising hereunder or related in any way hereto against Licensor shall be brought within one (1) year after the occurrence giving rise to the claim or be barred forever. If any provision or portion of this Agreement is held by a court of competent jurisdiction to be invalid, void, or unenforceable, the remaining provisions or portions of this Agreement shall remain in full force and effect and shall in no way be affected, impaired or invalidated. IT IS EXPRESSLY UNDERSTOOD AND AGREED THAT EACH AND EVERY PROVISION OF THIS

AGREEMENT THAT PROVIDES FOR A LIMITATION OF LIABILITY, DISCLAIMER OF WARRANTIES OR EXCLUSION OF DAMAGES, IS INTENDED BY THE PARTIES TO BE SEVERABLE AND INDEPENDENT OF ANY OTHER PROVISION AND TO BE ENFORCED AS SUCH. You hereby waive any governmental immunity, if applicable, to any and all causes of action arising hereunder or related hereto. All notices required to be given hereunder shall be in writing. Notices shall be considered delivered and effective upon receipt when sent by registered or certified mail, postage pre-paid, return receipt requested, addressed to the parties as set forth above or by telecopy with proof of transmission. Either party, upon written notice to the other, many change the address to which future notices shall be sent.(b) It is expressly declared that this Agreement and the relationship between the parties hereby established do not constitute a partnership, joint venture or agency arrangement between them.

All amounts payable hereunder are exclusive of all freight, insurance and all **federal, state, local,** municipal or other excise, sales, use, property or similar taxes, duties, import charges and fees, now in force or enacted in the future, and all such amounts shall be paid by You, unless You provides a certificate of exemption or similar document exempting a payment from an applicable tax.

(c) If You attempt to use, copy, disclose, or transfer any portion of the Software or any modification thereof or Confidential Information in a manner contrary to the terms of this Agreement or in derogation of Licensor's rights, whether those rights are explicitly stated, determined by law, or otherwise, Licensor shall have the right, in addition to any other legal remedies available, to injunctive relief enjoining such acts without the posting of bond, it being acknowledged by You that all other remedies are inadequate.

(d) This Agreement contains the entire agreement of the parties with respect to the subject matter hereof, and supersedes and terminates any and all correspondence, proposals, RFPs, Your purchase order, terms or agreements or contracts, written or oral, entered into between the parties relating to the subject matter hereof, and any representation, promise, or condition in connection herewith not in writing shall not be binding upon either party. Neither the title of this Agreement nor the Section headings shall have any bearing whatsoever on any interpretation hereof. None of the provisions of this Agreement shall be deemed to have

been waived by any act of or acquiescence on the part of Licensor, its agents, or employees, but only by an instrument in writing signed by an authorized representative of Licensor. No waiver by Licensor of any provisions of this Agreement shall constitute a waiver of any other provision or of the same provision on another occasion. This Agreement may be amended only in writing signed by each of the parties hereto. This Agreement is personal to You, and You may not assign or sublicense its rights or obligations under this Agreement in any way to any third party. This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective permitted successors and assigns.

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Version 2, June 1991

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Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users. This General Public License applies to most of the Free Software Foundation's software and to any other program whose authors commit to using it. (Some other Free Software Foundation software is covered by the GNU Lesser General Public License instead.) You can apply it to your programs, too.

When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs; and that you know you can do these things.

To protect your rights, we need to make restrictions that forbid anyone to deny you these rights or to ask you to surrender the rights. These restrictions translate to certain responsibilities for you if you distribute copies of the software, or if you modify it.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must give the recipients all the rights that you have. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

We protect your rights with two steps: (1) copyright the software, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the software.

Also, for each author's protection and ours, we want to make certain that everyone understands that there is no warranty for this free software. If the software is modified by someone else and passed on, we want its recipients to know that what they have is not the original, so that any problems introduced by others will not reflect on the original authors' reputations.

Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that redistributors of a free program will individually obtain patent licenses, in effect making the program proprietary. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

The precise terms and conditions for copying, distribution and modification follow.

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TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License applies to any program or other work which contains a notice placed by the copyright holder saying it may be distributed under the terms of this General Public License. The "Program", below, refers to any such program or work, and a "work based on the Program" means either the Program or any derivative work under copyright law: that is to say, a work containing the Program or a portion of it, either verbatim or with modifications and/or translated into another language. (Hereinafter, translation is included without limitation in the term "modification".) Each licensee is addressed as "you".

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running the Program is not restricted, and the output from the Program is covered only if its contents constitute a work based on the Program (independent of having been made by running the Program). Whether that is true depends on what the Program does.

1. You may copy and distribute verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and give any other recipients of the Program a copy of this License along with the Program.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Program or any portion of it, thus forming a work based on the Program, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

a) You must cause the modified files to carry prominent notices stating that you changed the files and the date of any change.

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